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ACCOUNTING FUNDAMENTALS

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ACCOUNTING FUNDAMENTALS

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ACCOUNTING FUNDAMENTALS

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PREFACE

This text undertakes to provide a first-year course in accounting, with accepted principles of accounting arranged in an orderly fashion to capture the student's interest, to hold it, and to anticipate his difficulties so that unnecessary questions are avoided. The authors have a combined teaching experience of more than sixty years, including primarily students in the school of business but also students registered in the colleges of liberal arts, education, and engineering, in addition to thousands in evening classes. From these students they have learned the necessity of defining each new term and also the sequence in which statements must be made in order to explain each new principle.

The second edition of "Accounting Fundamentals" follows the outline of the earlier edition because experience has proved the original pattern to be both sound in theory and teachable. Additional illustrative material has been added to many chapters to strengthen and clarify the presentation, particularly in connection with such subjects as analysis of proprietorship, adjustments, bad debts, depreciation, corporations and payroll. Certain subjects, such as adjustments, readjustments, and bonds, have been summarized to crystallize student thinking. The problem material for the thirty chapters is entirely new, and several cases are provided for some topics, so that courses with a number of sections may have different figures for each group. The revised text contains six practice sets, which may or may not be used, at the discretion of the instructor. Practice Sets 1-*A* and 1-*B* are included after the problems for Chapter XIII. They offer a choice of practice material to review the subject matter to the end of that chapter. Practice Sets 2-*A* and 2-*B* are included after the problems for Chapter XIX. These two sets involve the use of subsidiary ledgers, controlling accounts, and columnar journals. Practice Sets 2-*A* and 2-*B* are continuations of Sets 1-*A* and 1-*B*, but either set 2-*A* or 2-*B* may be used, even though its corresponding previous set is not

used. Practice Set 3-*A* or 3-*B* requires the use of the voucher system and is concerned with a manufacturing enterprise. These two sets appear after the problems for Chapter XXIX.

Special forms on which to prepare solutions to the problems and practice sets may be obtained from the publishers of this text, but almost all the problem solutions may be presented on standard journal, ledger, statement, or work-sheet paper.

The authors wish to thank their colleagues for their friendly advice and to express their sincere appreciation to Mr. Frank N. Willetts, instructor in accounting at the University of Pittsburgh, for the excellent and exacting assistance he gave in the textual changes, the problems and practice sets, and the solutions. The last word of appreciation is due our students of recent years for their frank comments on the first edition of this book. Their reactions influenced the preparation of the revised manuscript.

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PHILADELPHIA, PA.,
PITTSBURGH, PA.,
January, 1947.

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CHAPTER I

ACCOUNTING—ITS SIGNIFICANCE

Accounting Defined

Accounting may be defined as the science and the art of systematically recording, presenting, and interpreting the financial facts of an individual or enterprise.

Accounting, the science, is the classified knowledge of the subject—the body of scientific principles which has been developed as a result of study and experience.

Accounting, the art, is the actual classifying and recording, presenting, and interpreting of the financial facts of an individual or enterprise.

The Enterprise

It should be noted that accounting deals with the financial facts of an individual or an enterprise. To illustrate, suppose a man is at one and the same time a practicing attorney at law, the sole owner of an automobile agency, a partner in a shoe-manufacturing business, and the owner of some shares of the capital stock of a corporation which supplies electric current to his community. If full opportunity is taken of the possibilities of accounting, there will be an accounting system for the law office, an entirely separate system for the automobile agency, another one for the shoe firm, and an independent one for the electric-light company. Each undertaking here mentioned is a separate enterprise. Accounting must be applied to each of these enterprises, if full information is desired about their respective financial conditions and results. In addition, an entirely distinct system of records may be kept to show this man's personal or private financial transactions.

The concept of an enterprise as a unit or undertaking for which financial records should be classified and kept, summarized, and

interpreted is absolutely essential in accounting. It is common, therefore, for each business establishment to have its own accounting system and to be treated as an entirely separate unit, something apart from its owner or owners.

Nonprofit Enterprise

Accounting is thought of as applying usually to a business enterprise operated to earn a profit, and it is in that connection that it will be considered in this text. However, the principles of the subject are applicable to, and are used in connection with, the financial transactions of an enterprise whether profit seeking or not. Thus there is governmental accounting for the nation, a state, a city, a school district, or other governmental unit, and accounting for nonprofit undertakings such as religious, charitable, educational, or social organizations. Whenever a person or enterprise, whether profit seeking or not, has financial transactions with sufficient frequency and complexity that it is not safe to rely on memory alone, there is opportunity and need for the application of accounting principles.

Recording

In order that a complete record of the financial transactions of a business may be preserved and be available for presentation and interpretation, each transaction must be classified at the time of occurrence and be recorded according to a predetermined plan.

Thus if merchandise is sold to a customer who does not pay for it, that transaction is classified to indicate that merchandise and claims on customers are involved. It is referred to as a *charge sale* or *sale on account* and is recorded perhaps on a special form or in a special book. If money is received from a customer the transaction is classified to show that cash and claims on customers are affected. It is referred to as a *cash receipt* and is recorded according to a plan whereby all cash received can be readily noted.

The recording of transactions is commonly referred to as bookkeeping. Bookkeeping, or account keeping, may be defined as the systematic recording of the financial transactions of a person or enterprise.

A person may keep his own records or may have them kept for him in any way which pleases him. Although crudely done,

he may call the system bookkeeping. Not all bookkeeping is in accord with sound accounting principles and methods. Many individuals and organizations are satisfied with a meager bookkeeping system. Sometimes the system is expected to show merely the accounts or records with the customers and creditors of the business; in other cases a record of cash receipts and disbursements is the principal object. In an enterprise where the owner expects the accounting department not merely to supply just a few facts but to be a true and complete history department of the business, that the results of the past may be utilized to explain the present and to guide the future, then the bookkeeping aspect of accounting is very important as a necessary preliminary to the other accounting functions.

Presenting

The presentation of financial facts, the second function of accounting, deals with the summarization of the accumulated recorded data and the preparation of particular reports or statements to show condition, results of operation, or other pertinent information with respect to the business.

This second function of accounting covers the utilization of the recorded facts to ascertain the results. After the desired facts are obtained from the mass of bookkeeping data, they must be arranged and set up in the form of financial pictures which will be significant to all parties concerned. Recognition of the importance of this second phase of accounting is of comparatively recent origin. It was not until business units were reasonably large and complex that there was a need for so many and varied reports based on the recorded facts.

Interpreting

The interpretation of financial facts, the third function of accounting, deals with the explanation and utilization of the reports or statements with which the second phase of accounting treats.

The full significance of an accounting report or statement may not be apparent to those persons for whom it is prepared because of its necessary form or technical wording or content. It needs to be explained to those who must use it. Again, a particular statement by itself may have little meaning, and full use may not

be made of it until it has been placed beside a similar statement of a prior period, or of another concern in the same field, and the changes or differences noted. Sometimes a statement is so comprehensive that the full significance of the information it contains is not apparent until it has been studied and analyzed, and percentages, relationships, and ratios determined.

This extremely important phase of accounting deals with the complete utilization of statements and reports in an endeavor to ascertain facts with respect to financial condition or operation. Thus an analysis should be made to ascertain such facts as.

Is the stock of merchandise low or excessive in relation to sales?
Are customers' payments lagging?
Would the elimination of certain lines of merchandise result in increased earnings?
Is the business in a position to meet its obligations promptly?

Necessity of Accounting

If a doctor desires to know

1. The names of patients who owe him money and the amount in each case, or
2. The financial obligations he has incurred, or
3. The nature and amount of items of value he possesses, or
4. The amount of his earnings for any period and the sources thereof, or
5. The nature and amount of his expenses, or
6. What he is worth, or
7. How much his worth has increased or decreased since the last time he determined it, or
8. The correct information to present on his Federal Income Tax Return, which he, like all other citizens, must file annually if his gross income totals more than a certain amount,

he must make use of some of the methods and principles of accounting. If this is true in the case of a doctor whose financial transactions are usually plain and simple, it is obvious how much greater is the need for the application of accounting principles in a commercial enterprise. In a business enterprise there may be varied types of transactions; the number of transactions each day may be tremendous, may involve large sums of money and

many of them may be quite complicated. The student is asked to think of the number of financial records it is necessary for his local gas, electric-light, and telephone company to keep. Think of the business transactions which take place daily in a large department store, in a prominent bank, in any great business establishment, and the necessity of systematically recording, presenting, and interpreting them will be apparent.

Accounting and the Modern Business Era

The present business era may be characterized as a period of large-scale endeavor carried on mostly by corporate organizations. It is quite common to find corporations possessed of items of value running into millions of dollars, with widely scattered plants, thousands of employees, other thousands of shareholders, an enormous volume of production, and a widespread field of distribution. The large corporation is likely to be a very complex unit.

An individual or the partners of a firm owning a small business may have very close and intimate contact with the details of their enterprise, but the situation is quite different in a corporation such as was just described. Thousands of shareholders take the place of the individual or the partners as owners, and a board of directors and group of officers take their places as managers. Instruction must be given and authority delegated on down through the organization and to the various plant and office executives. Mere size alone prevents close contacts of those in high office with the details of operations. Accounting control offsets, in large part, mere size and absence of contact. Through reports and explanations of operations and financial condition, accounting control supplies information necessary to the management for the successful direction of the enterprise and for reporting to the shareholders.

Accounting has helped to make possible the large-scale commercial establishments which are such an important part of the present economic order. The ever-increasing size of these enterprises with attending added complexity and specialization is, however, forcing an even greater reliance on the functions of accounting. The accounting department is truly the financial history department of a business. The data compiled by the accounting department are used not only to tell the financial

story of the past but to plan for the future. Accounting records of past events are necessary in the preparation of budgets which embody plans for the control of future business activities, and accounting methods are necessary for the execution and control of budget plans.

The place of accounting in the present economic order is significant in connection with the studies of a young person planning a career in business, public life or the professions related to business. The principles according to which business events are recorded, presented, and interpreted should be understood clearly.

Persons Interested in Accounting Disclosures

Accounting is of primary importance to owners and managers but its results may be of interest to others.

1. *Owners.* A business enterprise is a profit-seeking endeavor. The measure of its success and its financial condition are of primary importance to its owner or owners.

2. *Managers.* In a small business establishment, especially a sole proprietorship where one person is the owner, or in a partnership where two or more partners are owners, the managers are likely to be the owners of the undertaking. The greater the size of the establishment, especially under corporate form, the more remote the relationship between ownership and management is apt to be. Accounting is an indispensable tool of management. Through it the financial records of the past and present are revealed, the results of operations disclosed and data supplied on which, in part, the future may be anticipated.

3. *Creditors.* Persons who have debts due from a business or other claims upon the property of a business are called creditors. The creditors of a business are very much interested in its financial condition and its operating results. It is quite common for credit to be refused until the adequacy of the financial responsibility of the concern seeking the credit has been indicated through accounting statements.

4. *Prospective Investors.* A person contemplating an investment in a particular concern is naturally very much interested in its past and present condition and the trend of its operating profit or loss as exhibited in its accounting statements.

5. *Government Officials.* In connection with the various taxes, city, county, state, and federal, to which a business may be subject, also in connection with the various state and national commissions which regulate some business establishments such as public utility companies, statements and returns based on accounting data must be filed with various officials. It is not uncommon for government representatives to examine the accounting records of these businesses.

6. *Employees.* Many corporations have encouraged their employees to purchase shares of stock. When this has been done the employees are interested not only as employees but as shareholders as well.

7. *Citizens.* The ordinary citizen should be interested in the financial records of his bank; of his church; of his social and charitable organizations; and of the public utilities, such as the gas, electric, telephone, transportation, and water companies which serve his community. Possibilities of rate or service changes may be reflected in the accounting statements of these companies.

In a very broad way the ordinary citizen should be interested in financial records of the nation as well as of his city, county, state, school district, or other governmental units. As a voter and taxpayer he is a most interested party.

The Practice of Accounting

An accountant literally is one who understands and applies the scientific principles of accounting in any of its parts—recording, presenting, or interpreting financial facts. Actually the word accountant connotes abilities and activities beyond those required for mere recording which is the work of bookkeepers, for an accountant is expected to be able to supervise and direct the work of the bookkeepers in recording, to analyze the recorded data, to present and interpret it, to design and install an adequate system for the collection of the data, and to audit the records.

Special Divisions of Accounting Practice

1. *Designing a System.* An adequate accounting system will furnish clear and accurate information promptly and economically. It should be designed to meet the needs of a

particular enterprise. A system which may be adequate for a small grocery store would be totally unsuited to the needs of a large grocery chain. A system should be designed only after a thorough study of the size, kind, and volume of business done.

2. *Cost Accounting.* Cost accounting is one of the most significant, important, and rapidly expanding fields of accounting. It attempts to analyze much more carefully than does general accounting the elements entering into the cost of producing and distributing goods or rendering services in order that unit costs may be determined and that management may be supplied with much more detailed information.

3. *Auditing.* The field of auditing deals with the examination and verification of the accuracy of the accounting records of an individual or enterprise.

4. *Miscellaneous.* Many other special duties come within the activities of an accountant, such as, the preparation of returns to a government agent; the preparation of accounts and statements required by the courts in cases of decedents' estates or bankruptcies; and special investigations for bankers, investors, and creditors.

Accountants are known as private accountants, public accountants, and certified public accountants. A private accountant is one employed by a particular enterprise. A public accountant is one who practices professionally and whose services are available to an individual or enterprise in need of them. A certified public accountant is a person who has met the requirements of a state with respect to character and fitness and who has been granted a certificate which permits him to use the designation C.P.A. A C.P.A. may be engaged in either private or public practice.

Accountancy is the profession of public accounting.

Accounting in a Business Curriculum

A student should be conscious of the pervasiveness of accounting within a business establishment. The accounting department has contacts with all other departments—production, advertising, selling, finance, and any others a particular enterprise may have. It records their financial transactions and places summaries of them before the management so that the functioning of the entire business may be known and directed.

Accounting is not, therefore, an isolated subject to be studied by itself. A full appreciation of its significance and usefulness is not possible unless it is studied and developed in connection with the fields of economics, finance, statistics, industry, the law, and the other subjects of a business curriculum.

QUESTIONS

1. What is accounting?
2. What is meant by a science? An art?
3. What is meant by the expression *systematically recording?*
4. What is an enterprise? May one person be the owner of more than one enterprise? Are all enterprises conducted to earn a profit? Name several which are not.
5. Name ten different enterprises which exist in your community. Should each have an accounting system? Why?
6. May one person be interested in the accounting statements of more than one enterprise? How?
7. What do you mean by a financial transaction? Have you had any financial transaction with your college? Did your illustration represent a financial transaction from the standpoint of the college?
8. Which of the following items represent financial transactions?
   a. The sale of merchandise for cash.
   b. The sale of merchandise on account. What do you mean by *on account?*
   c. The transfer of merchandise from the shelves to the counters of a store.
   d. The receipt of cash from a customer in payment of a bill. What do you mean by *a customer? A bill?*
   e. A payment to a creditor. Who is a creditor of yours?
   f. The transfer of money from the cash register to the safe.
   g. Decorating the store windows with merchandise taken from the counters, shelves and racks.
   h. Paying salaries.
9. Name three functions of accounting. What do you mean by recording? Presenting? Interpreting?
10. Are accounting and bookkeeping synonyms? If not, what is bookkeeping?
11. What prompts a person to start a business enterprise? Why should the enterprise have an accounting system?
12. Why does the federal government need and use accounting? A bank? An attorney at law? A hospital?
13. Does a very large business enterprise have a greater need for accounting than a very small business enterprise? Why?

14. Does accounting information disclose past, present, or future facts? In what ways may accounting information be used in connection with future events?
15. The information about a particular railroad, which is disclosed by the use of accounting, is of interest to what groups of persons? Ask yourself the same question about a bank, an insurance company, an electric-light and power company, a department store, and a city.
16. Distinguish between an accountant and a bookkeeper.
17. What do you mean by a private accountant, a public accountant, a certified public accountant?
18. Why should a person who is studying to become an accountant be interested in business law? In economics? In finance? In English grammar?
19. Why should a person be interested in accounting, if he is studying to become a lawyer? A commercial banker? An investment banker? A governmental employee? A manufacturer?
20. Do you believe a knowledge of accounting is helpful to a person who must file an income-tax return? Why?

CHAPTER II

THE BALANCE SHEET

If a man were asked to present a statement to show the worth of his business it would be necessary for him to prepare a list of all the items of value owned by the business and all the amounts owed to it. The total of this list would be the worth of the business provided nothing was owed to any outsider. The excess of the total of this list of values owned, over the total of a list of amounts owed, would be the net worth of the business. A formal arrangement of these facts is known as a balance sheet or a statement of assets, liabilities, and net worth.

Basic Terms Defined

Assets are items of value owned by an individual or enterprise, including:

a. Tangible items, such as money, buildings, and machinery.
b. Intangible items, such as patents and goodwill.
c. Rights to receive tangible assets or services from other individuals or enterprises, such as accounts receivable and notes receivable.

Liabilities are debts or obligations to pay money or other assets or to render services.

Proprietorship (capital or net worth) is the excess of the assets over the liabilities. It is the proprietary or ownership interest (equity) in the total assets involved. As the obligations to creditors have first claim on the assets of an enterprise, there is no proprietary equity if the liabilities exceed the assets.

A *balance sheet* is a statement of the assets, liabilities, and net worth of an individual or enterprise at a given date.

Fundamental Accounting Equation

Since the equity of an owner in the assets of an enterprise is the excess of the assets over the liabilities, this relationship may be

expressed in the form of an equation that is fundamental to an understanding of accounting.

If a business has assets of $50,000.00 and liabilities of $10,000.00 the ownership equity (proprietorship, capital or net worth) is $40,000.00 as shown below:

$$\begin{array}{lcl} \text{Assets} & - \text{ Liabilities} & = \text{ Proprietorship} \\ \$50{,}000.00 & - \$10{,}000.00 & = \quad \$40{,}000.00 \end{array}$$

or

$$\begin{array}{lcl} \text{Assets} & = \text{ Liabilities} & + \text{ Proprietorship} \\ \$50{,}000.00 & = \$10{,}000.00 & + \quad \$40{,}000.00 \end{array}$$

The Balance Sheet Is a More Detailed Expression of the Fundamental Equation

To tell the owner of an enterprise that it has assets of $10,000.00, liabilities of $3,000.00, and a resulting net worth of $7,000.00 is to give him insufficient data on which to gauge its present financial status or to plan for its future. He needs to know which items are owned and their amounts, and which items are owed and their amounts.

Suppose the enterprise, the total figures of which are given above, is owned by Henry Dickson, that it occupies a rented property, and that the date is December 31, 19__. It has money in the safe in the amount of $250.00 and a bank balance of $750.00; customers John Adams and Wirt Allison owe it $600.00 and $400.00 respectively; Samuel Harris, another customer, owes on a note $500.00; there is salable merchandise on its shelves and counters which cost $4,000.00; the showcases, counters, and desks are owned and are worth $2,000.00; a new delivery truck cost and is worth $1,500.00. The enterprise owes Henry Davis $800.00 and Willard Jones $600.00. It also owes $1,600.00 on a note which it gave to the bank.

In listing assets and liabilities, it is desirable to use the accepted accounting titles which are both brief and descriptive, *i.e.*, the money in the safe and in bank is called Cash; the claims on John Adams and Wirt Allison are listed as Accounts Receivable; the amount due from Samuel Harris on a note is indicated as Notes Receivable; the salable merchandise is referred to as Merchandise Inventory; the showcases, counters, and desks as Furniture and Fixtures, and the new delivery truck may be

called either Delivery Truck or Delivery Equipment. The amounts due to creditors Henry Davis and Willard Jones are listed as Accounts Payable, while the amount owed on a note is expressed as Notes Payable.

In the following balance sheet, which expresses the facts given above, if a line were drawn down the center of the statement, the line could be compared to the *equals sign* in the fundamental accounting equation (Assets = Liabilities + Proprietorship).

HENRY DICKSON

BALANCE SHEET, DECEMBER 31, 19__

Assets		Liabilities	
Cash..................	$ 1,000.00	Accounts Payable.....	$ 1,400.00
Accounts Receivable...	1,000.00	Notes Payable.........	1,600.00
Notes Receivable......	500.00	Total Liabilities.....	$ 3,000.00
Inventory of Merchandise................	4,000.00	Proprietorship	
		Henry Dickson, Capital	7,000.00
Furniture and Fixtures.	2,000.00		
Delivery Equipment...	1,500.00		
Total Assets.........	$10,000.00	Total Liabilities and Proprietorship.....	$10,000.00

Subdivisions of Assets, Liabilities, and Proprietorship

In the presentation of a balance sheet it is desirable and customary to classify and arrange the assets, liabilities, and proprietorship under certain general headings.

ASSETS

The two fundamental classes of assets are current assets and fixed assets. Some additional classes are deferred charges, investments, and intangible assets.

Current assets are cash and other assets that will be converted into cash through the normal operation of the business, usually in less than a year. The assets are arranged under this heading in the expected order of convertibility. A few of the more customary titles to be found in this group are as follows:

Cash, which includes coins, paper monies, bank drafts, money orders, checks, and any other items that a bank will accept for deposit.

Accounts Receivable, which are claims on others not evidenced by formal written promises to pay the business. These

claims usually arise out of sales of goods or services. A separate record is kept for each customer.

Notes Receivable, which are signed promises to pay named sums of money to the business at some definite or determinable future time, such as promissory notes and trade acceptances. Trade acceptances may be titled separately.

Accruals Receivable, which are accumulating claims arising out of services rendered by the business over a period of time but which are not yet due. An example is the accrued interest on a note receivable. At any time before the date of maturity there is an amount of accrued interest receivable, which represents a claim of the business but which is not due and will not be due until the end of the interest period. Another example is Accrued Rent Receivable.

Inventory of Merchandise, which is the merchandise on hand at a given time. Merchandise is the name given to the goods purchased or produced for the purpose of being sold. The word inventory also means a list that shows the composition and the value of the stock of goods on hand. The inventory may be priced at cost, but usually it is priced at cost or market, whichever is the lower. In a manufacturing business separate inventories are taken for raw materials, goods in process, and finished goods.

Investments represent assets owned for the purpose of exercising control or for their investment character, such as shares of stock in corporations, bonds, mortgages, and real estate. If the investment assets are to be converted into cash within a year, they should be treated as current assets. If they have been purchased to obtain a greater return on idle funds than would be obtained from a bank and are readily marketable, there is no objection to including them with the current assets unless substantial amounts are so invested. They may be sold and cash realized quickly for the payment of debts. If they are not readily marketable and are not temporary investments, they should be shown under the separate balance sheet classification, *Investments.* Investments when used as a balance sheet heading appears between the current and the fixed asset groups, preferably immediately following the current assets.

Deferred charges (deferred charges to operation or deferred

assets) are expenditures for supplies or services that are to be charged as expenses in a subsequent period or periods. Deferred charges include expense items that have been incurred in advance of the period to which they are applicable—prepaid expenses, and other items that are treated as assets until they are charged to later periods. Only those deferred charges which represent prepaid expenses are illustrated at this time. Some of the more usual prepaid expense titles follow:

Inventory of Supplies, which are supply items such as stationery, twine, wrapping paper, packing boxes, etc., on hand at a given date. Separate inventory records are made of all consumable supplies such as fuel oil, coal, and postage.

Prepaid Insurance (Unexpired Insurance), which is the proportionate amount of the insurance premiums paid for or incurred which is applicable to future periods. Prepaid Advertising, Prepaid Rent, and Prepaid Interest are other prepaid expense titles.

In some balance sheets prepaid expenses are listed with the current assets, not because they are assets which are to be converted into cash but because they represent, ordinarily, cash paid in advance as a result of which the demands on cash will be reduced next period. As prepaid expenses will not produce cash to satisfy the debts of a business it seems advisable to treat them under the classification, *deferred charges.*

Fixed assets are relatively long-lived assets necessary in the operation of the business and not convertible readily into cash. They are not stationary but are "fixed" from the standpoint of the permanence of the investment in them. Such assets are not held for sale but are utilized in the conduct of the business. They usually decline in value because of wear and tear and the development of more modern equipment. Several of the most common examples follow:

Land, which is the ground owned and needed for the conduct of the business.

Buildings, which are the edifices owned by and used in the conduct of the business.

Machinery, which is the title for all machine equipment used for manufacturing.

Furniture and Fixtures, which are the chairs, desks, cabinets, and similar equipment necessary for the efficient operation of the business. It is ordinary practice to separate this asset into:

Store Furniture and Fixtures, which are the cash registers and the showcases, counters, bins, and other equipment used for the display or the selling of goods.

Office Furniture and Fixtures, which are the filing cabinets, adding machines, desks, chairs, safes, and other equipment needed for the efficient administration of the office.

Delivery Equipment, which includes motor trucks and horses and wagons used to transport goods to and from the business.

Patterns, which are the models from which the product is to be made.

Patents, which are the exclusive rights granted by the government to make and sell new inventions or processes.

Trade-marks, Copyrights, Franchises, Leaseholds, Licenses, and Goodwill are other intangible asset titles that may be listed as fixed assets.

Intangible assets, such as patents, goodwill, and the others indicated above, may be placed, in fact many accountants feel they should be placed, under a separate balance sheet classification, *intangible assets.* However, the accountant does not place all intangible assets under that caption. For reasons previously explained, some intangibles, like *receivables,* are classified as current assets, while others, like *prepaid insurance,* are treated as deferred charges.

LIABILITIES

The two fundamental classes of liabilities are current liabilities and fixed liabilities. An additional class is deferred credits.

Current liabilities are those debts or obligations that are to be satisfied usually in less than a year. The more common examples of this group follow:

Accounts Payable, which are current debts not evidenced by formal written promises to pay. These claims usually arise out of purchases of goods or services. A separate record is kept with each creditor.

Notes Payable, which are written promises of the business to pay named sums of money to other persons or enterprises at some definite or determinable future time. Usually only notes with a maturity date less than a year away are included in the current liability group.

Accruals Payable, which are accumulating debts arising out of services rendered to the business over a period of time but which debts are not due. Wages accrue from day to day and at any date between paydays there is an amount of Accrued Wages Payable which represents a debt of the business, but which debt is not due and will not be due until the end of the wage period. Accrued Interest Payable and Accrued Taxes Payable are other illustrative titles of accruals payable.

Deferred credits (deferred credits to income or deferred liabilities) represent cash receipts or receivables of one period that will be earnings of a subsequent period or periods. This type of liability is satisfied usually in products or by rendering services. Many firms do not have any deferred credits. Examples are: Interest Collected in Advance, Subscriptions Collected in Advance, Rentals Received in Advance, Unearned Insurance Premiums. The illustrations cited might appear as liabilities in the balance sheets prepared respectively for banks, publishers, landlords, and insurance companies.

Fixed liabilities are debts with a maturity date usually more than a year away. These liabilities arise ordinarily at the time fixed assets are purchased. When the maturity date of any liability which has been classed as a fixed liability is less than a year distant, it should be classed as a current liability if it is to be paid out of current assets. Long-term Notes Payable are fixed liabilities and two even more common ones are:

Mortgage Payable, which is the title used to indicate an indebtedness secured by a conditional conveyance of the title to property with the proviso that the conveyance shall be void on payment of the principal and interest within a certain period. Usually the security is real estate, and the mortgage is recorded in the office of the County Recorder of Deeds.

Bonds Payable, which are written promises, issued under seal, to pay the principal of a debt at the maturity date and the interest at regularly recurring intervals. They differ from notes in that the latter are usually for a short term. There are many kinds of bonds; some have specific property pledged to secure them, others are just general unsecured promises to pay. When backed by a mortgage or lien on specific property the mortgage is usually made out to a trustee representing the various bondholders.

Contingent Liabilities are to be considered in a later chapter.

PROPRIETORSHIP

Proprietorship represents the equity of the owner in the assets. It is the amount of the net worth—the excess of the assets over the liabilities. If a business is owned by one person, it is termed a sole proprietorship. The expression of proprietorship for a partnership and for a corporation will be explained in later chapters.

The Order of Listing Assets and Liabilities

There is no standard of practice or theory with respect to the order to be followed in listing the classes of assets and liabilities on the balance sheet. Some accountants favor starting the assets with the fixed group since that is the class of assets in which the stockholders or possible investors may be most interested, as it represents the permanent assets of the concern. Others favor the plan of placing the current assets first, since that group is most interesting to creditors because it exhibits the ability of the establishment to meet its obligations. This plan, not alone for the reason here cited, seems to be increasing in appeal and use. Regardless of the order in which assets are listed, the same plan should be followed for liabilities, so that corresponding groups of assets and liabilities appear in contrast.

Object and Use of a Balance Sheet

The primary object of a balance sheet is to set forth in orderly fashion the financial condition of a business at a particular date, in order that the owner may see the composition of his net worth, the banker and trade creditors may determine the solvency of the concern and its ability to satisfy their claims when due, and

the prospective buyer or investor may satisfy himself as to the security of an investment in the enterprise.

To accomplish this object the balance sheet must exhibit the financial condition of the business at a stated time so that the respective values of the assets, liabilities, and proprietorship will be shown clearly by classes and by items. It is not sufficient to know that a business has a net worth of $20,000.00. The relation between the assets and liabilities in total and in classes is necessary to accomplish the purposes indicated in the preceding paragraph. For example, two businesses of the same net worth may show widely different relationships between the assets and liabilities and between the assets and proprietorship.

	A	*B*
Assets	$25,000.00	$125,000.00
Liabilities	5,000.00	105,000.00
Net Worth	$20,000.00	$ 20,000 00

The equity of the owner in business *A* is 80 per cent of the assets, while in business *B* it is only 16 per cent. In business *B* it is important to know if the $125,000.00 consists of $120,000.00 fixed and $5,000.00 current assets, or any other combination. Fixed assets cannot be converted readily into cash for the purpose of paying the debts of the business. It is likewise important to know the composition of the $105,000.00 liabilities, whether they are long term (fixed) or short term (current), that the necessary arrangements may be made to satisfy them at maturity.

Form

Two forms of presenting the balance sheet have been developed, each of which is an elaboration of the fundamental equation.

a. Report Form for a Sole Proprietorship

DAVID MULFORD

BALANCE SHEET, DECEMBER 31, 19—

Assets

Current Assets:		
Cash		$ 2,800.00
Accounts Receivable		8,600.00
Notes Receivable		1,000 00
Accrued Interest Receivable		8.00
Inventory of Merchandise		12,600.00
Total Current Assets		$25,008.00
Deferred Charges:		
Prepaid Insurance	$ 50.00	
Inventory of Supplies	30.00	
Total Deferred Charges		80.00
Fixed Assets:		
Land	$ 4,000.00	
Buildings	10,000 00	
Furniture and Fixtures	3,500.00	
Total Fixed Assets		17,500.00
Total Assets		$42,588.00

Liabilities

Current Liabilities:		
Accounts Payable	$ 5,500.00	
Accrued Wages Payable	88.00	
Notes Payable	3,000.00	
Total Current Liabilities	$ 8,588.00	
Fixed Liabilities:		
Mortgage Payable	5,000 00	
Total Liabilities		13,588.00

Proprietorship

David Mulford, Capital		$29,000.00

b. Account Form for a Sole Proprietorship

DAVID MULFORD

BALANCE SHEET, DECEMBER 31, 19__

Assets

Current Assets:		
Cash		$ 2,800.00
Accounts Receivable		8,600.00
Notes Receivable		1,000.00
Accrued Interest Receivable		8.00
Inventory of Merchandise		12,600.00
Total Current Assets		$25,008.00
Deferred Charges:		
Prepaid Insurance	$ 50.00	
Inventory of Supplies	30.00	
Total Deferred Charges		80.00
Fixed Assets:		
Land	$ 4,000.00	
Buildings	10,000.00	
Furniture and Fixtures	3,500.00	
Total Fixed Assets		17,500.00
Total Assets		$42,588.00

Liabilities

Current Liabilities:	
Accounts Payable	$ 5,500.00
Accrued Wages Payable	88.00
Notes Payable	3,000.00
Total Current Liabilities	$ 8,588.00
Fixed Liabilities:	
Mortgage Payable	5,000.00
Total Liabilities	$13,588.00
Proprietorship	
David Mulford, Capital	29,000.00
Total Liabilities and Proprietorship	$42,588.00

Either form is entirely acceptable, although the account form is more widely used.

Both forms contain exactly the same information but differ in arrangement and appearance. The report form is an adaptation of the first equation appearing in this chapter (assets − liabilities = proprietorship), while the account form is based on the second equation (assets = liabilities + proprietorship). The date of preparation is highly important, regardless of the form, and should be indicated always at the top of the statement together with the name of the business and the title Balance Sheet.

The balance sheet in account form is the more popular for obvious reasons. The mere length of a balance sheet in report form, in itself, favors the account form. In the account form, an easier comparison of comparable sections of the statement is possible. Whenever two pages are used in the account form, invariably they are opposite ones so as to present the complete statement before the eyes of the reader.

QUESTIONS

1. How is the fundamental accounting equation expressed in the account form of balance sheet? In the report form of balance sheet?
2. Distinguish between a note receivable and an account receivable.
3. Inventory of merchandise usually is valued at what price? Suppose market price is higher than cost price, which price is used usually for inventory purposes? Would you say it is desirable or undesirable to value inventory of merchandise at market price, if market price is higher than cost price? Why?
4. Do you believe fixed assets when acquired should be listed at cost price or at the amount they might be expected to bring if sold in the secondhand market? Why?
5. If you wanted to classify all the assets of a large manufacturing business under two headings, what headings would you use? Why?
6. Can you give the point of view of those persons who list prepaid expenses under the heading current assets? Under the heading deferred charges?
7. Is the accrued interest on a mortgage owned by an enterprise a current or a fixed asset? Is the mortgage a current or a fixed asset? What is a mortgage?
8. Is interest accrued but not yet due on a note payable an accrued liability? Is it a current liability? Is it a deferred credit? What is a deferred credit?
9. Distinguish between a *prepaid expense* and an *accrual payable.*
10. Express liabilities in terms of the fundamental accounting equation.
11. If the liabilities exceed the assets, what is the status of proprietorship?

12. How may a proprietor increase his equity in an enterprise? Is there any other way in which the net worth of an enterprise may be increased over a period of time?
13. If the liabilities of an enterprise increase, does the equity of the owner decrease necessarily? Give an illustration to prove your answer.
14. Would it be possible for an enterprise to have earned a net profit during a year, if the assets on the balance sheet at the end of the year were less than they were at the beginning of the year? Explain.
15. Would it be possible for an enterprise to have operated at a net loss for a year, if the liabilities at the end of the year were less than at the beginning of the year? Explain.
16. Suppose the four items listed below were either omitted or treated improperly in the preparation of a balance sheet. Indicate in each case the possible effect on the equity of the owner.
    a. A note receivable was listed as an account receivable.
    b. The inventory of merchandise was overvalued.
    c. Accrued interest on notes payable was ignored.
    d. A mortgage payable on the real estate was subtracted from the total value of the land and buildings.
17. Indicate for each of the four cases cited in question 16 whether the total assets of the balance sheet were understated, overstated, or correctly stated.
18. Indicate for each of the following items whether it is a fixed asset, a current asset, a deferred charge, a fixed liability, a current liability, or a deferred credit:
    a. Patents.
    b. Unpaid taxes on business property.
    c. Customer accounts owed to the enterprise.
    d. Accrued interest not due on a bank loan.
    e. Amounts owed to a bank on signed notes.
    f. Amounts owed to trade creditors.
    g. Interest collected in advance on customer notes.
    h. Advertising paid in advance.
    i. Inventory of office stationery.
    j. Mortgage on the business property.
    k. Store supplies on hand.
    l. Money in the safe and bank.
19. What accounting title should be given for balance sheet purposes to each item listed in question 18?
20. Should notes owed by customers be considered cash? Should any of the following items be considered cash: United States government bonds? Checks received from customers? Postal money orders?
21. Give two synonyms for proprietorship.

CHAPTER III

ANALYSIS OF PROPRIETORSHIP

The proprietorship or net worth of an enterprise varies over a period of time, as a result of:

1. Operating the enterprise at a profit or loss.
2. Additional investments by the owner.
3. Withdrawals of capital by the owner.
4. Combinations of above three factors.

The previous chapter considered the balance sheet—an exhibit of the assets, liabilities, and proprietorship of an enterprise at a given time. This chapter is concerned with the analysis of changes in proprietorship during a period of time.

Fiscal Period

A fiscal period is the uniform interval between the preparation of the financial statements of a business. It may be a year, six months, three months, one month, or any other uniform period. Most concerns have their fiscal year end with the calendar year, but many, as a matter of economy and convenience, have it end some time other than December 31. It seems advisable to arrange the fiscal year to close when business is regularly dull and inventories are low. The financial statements are prepared after all business transactions of that period have been considered.

Comparison of Proprietorship

In the preceding chapter the balance sheet prepared for David Mulford revealed that he had a net worth of $29,000.00 at the close of business on December 31. Twelve months before a similar statement showed the equity of the proprietor to be $25,000.00, his original investment. A comparison of these two figures shows that proprietorship had a net increase of $4,000.00 during the fiscal period. If an investigation reveals that Mr. Mulford did not invest any more of his personal funds

in the business or withdraw any of its assets during the year, this net increase is the result of operating the business at a net profit.

The difference between the net worth of a business at the beginning and at the end of a fiscal period is the net increase or decrease in proprietorship, and, if there have been no added investments or withdrawals, it will represent the net profit or loss for the period.

Balance Sheet Changes

As already stated a balance sheet may be expressed algebraically as

$$\begin{array}{ccccc} \text{Assets} & = & \text{Liabilities} & + & \text{Proprietorship} \\ A & = & L & + & P \end{array}$$

If thus viewed, it will be apparent that the proprietorship figure on a balance sheet at the end of a period will be different from the net worth figure at the beginning of the period, if asset and liability totals have changed in any one of the following ways:

Proprietorship will increase if

1. Assets increased while
   a. Liabilities remained the same.
   b. Liabilities decreased.
   c. Liabilities increased a lesser amount.
2. Assets decreased while liabilities decreased a greater amount.
3. Assets remained the same while liabilities decreased.

Proprietorship will decrease if

4. Assets decreased while
   a. Liabilities remained the same.
   b. Liabilities increased.
   c. Liabilities decreased a lesser amount.
5. Assets increased while liabilities increased a greater amount.
6. Assets remained the same while liabilities increased.

In order to determine whether a net increase or decrease in proprietorship is due to a net profit or loss, or whether it is due in whole or in part to added investments or withdrawals by the owner, it is necessary to investigate the reasons for the variation.

Factors That Increase Proprietorship

Proprietorship increases as a result of

1. *Added Investments,* a term used to describe additional financial contributions to a business by the owner, and
2. *Net Profit,* a term used to describe the increase in proprietorship resulting from the operation of a business in a given period.

Net profit resembles added investments in that it increases the equity of the owner in the business. It differs in that it arises from sources within the business, while added investments originate outside.

The balance sheet prepared at the close of a period includes the net profit and added investments made during the period. If an asset was sold at a profit, assets and proprietorship increased by the amount of the profit, with no change in the liabilities. If the owner made an additional investment in the business, say $3,000.00 cash, the assets and proprietorship increased $3,000.00, with no change in liabilities.

Factors That Decrease Proprietorship

Proprietorship decreases as a result of

1. *Withdrawals,* a term used to describe the removal of assets from the business by the owner, and
2. *Net Loss,* a term used to describe the decrease in proprietorship resulting from the operation of a business in a given period.

Net loss resembles withdrawals in that it reduces the equity of the owner in the business.

The balance sheet prepared at the close of a period reflects the net loss and any withdrawals made during the period. If an asset was sold at a loss, assets and proprietorship decreased by the amount of the loss, with no change in liabilities. If the owner withdrew from the business for his personal use, say $3,000.00 cash, the assets and proprietorship decreased $3,000.00, with no change in liabilities.

Net Increase or Decrease in Proprietorship Analyzed

With either a net increase or decrease in proprietorship there may be a net profit or loss for the period depending on the relationship existing between withdrawals and added investments. As previously stated, the net increase agrees with the net profit, and the net decrease with the net loss, if there have been neither added investments nor withdrawals. The following will illustrate:

1. A Net Increase in Proprietorship as the result of Added Investments and the Net Profit.

Assume that Mr. Mulford had an equity of $25,000.00 on January 1, 19A, that he had an equity of $29,000.00 on December 31, 19A, and that he had invested $1,000.00 of additional assets in the business during the year.

Proprietorship, December 31, 19A	$29,000.00
Proprietorship, January 1, 19A	25,000 00
Net Increase in Proprietorship	$ 4,000 00
Added Investments	1,000.00
Net Profit for the Year	$ 3,000.00

The above analysis indicates that $1,000.00 of the increase was caused by added investments and $3,000.00 by operating the business at a net profit.

2. A Net Increase in Proprietorship as the result of Added Investments in excess of the Net Loss.

Assume that Mr. Mulford had an equity of $25,000.00 on January 1, 19A, that he had an equity of $29,000.00 on December 31, 19A, and that he invested $13,000.00 of additional assets in the business during the year.

Proprietorship, December 31, 19A	$29,000.00
Proprietorship, January 1, 19A	25,000.00
Net Increase in Proprietorship	$ 4,000.00
Added Investments	13,000.00
Net Loss for the Year	$ 9,000.00

This analysis indicates that although the proprietor made added investments of $13,000.00, his equity in the business was only $4,000.00 more than it was a year ago; therefore, the business must have operated at a net loss of $9,000.00 for the year.

3. A Net Increase in Proprietorship as the result of Net Profit in excess of Withdrawals.

   Assume that Mr. Mulford had an equity of $25,000.00 on January 1, 19A, that he had an equity of $29,000.00 on December 31, 19A, and that he had withdrawn $3,000.00 of cash during the year.

Proprietorship, December 31, 19A.............	$29,000.00
Proprietorship, January 1, 19A................	25,000.00
Net Increase in Proprietorship................	$ 4,000.00
Withdrawals..................................	3,000.00
Net Profit for the Year.......................	$ 7,000.00

   The above analysis indicates that the equity of the owner increased $4,000.00 in spite of the $3,000.00 he withdrew; therefore, the business made a net profit of $7,000.00 during the year. Interpreting the analysis in reverse, Mr. Mulford made a net profit of $7,000.00 for the period, he withdrew $3,000.00 of it during the year, and $4,000.00 of it remained in the business at the end of the year.

4. A Net Increase in Proprietorship as the result of Added Investments and Net Profit in excess of Withdrawals.

Proprietorship, December 31, 19A.............	$29,000.00
Proprietorship, January 1, 19A................	25,000.00
Net Increase in Proprietorship................	$ 4,000.00
Withdrawals..................................	2,000.00
Total..	$ 6,000.00
Added Investments............................	5,000.00
Net Profit for the Year.......................	$ 1,000.00

   The above analysis indicates that in spite of withdrawals of $2,000.00, the equity of the owner went up $4,000.00; therefore, the total increase must have been $6,000.00, of which $5,000.00 was caused by added investments and the remaining $1,000.00 by operating at a net profit for the year.

5. A Net Increase in Proprietorship as the result of Added Investments in excess of the Withdrawals and the Net Loss.

Proprietorship, December 31, 19A	$29,000.00
Proprietorship, January 1, 19A	25,000.00
Net Increase in Proprietorship	$ 4,000.00
Withdrawals	2,000.00
Total	$ 6,000.00
Added Investments	7,000.00
Net Loss for the Year	$ 1,000.00

The above analysis is similar to No. 4 except that the added investments exceeded the total $6,000.00. Because the owner made added investments of $7,000.00, it would be expected that the total increase would be at least $7,000.00; since it was only $6,000.00, it is evident that the business operated at a net loss of $1,000.00 for the year.

6. A Net Decrease in Proprietorship as the result of Withdrawals and a Net Loss.

Assume that Mr. Mulford had an equity of $29,000.00 on January 1, 19A, that he had an equity of $25,000.00 on December 31, 19A, and that he had withdrawn $3,000.00 of assets from the business during the year.

Proprietorship, December 31, 19A	$25,000.00
Proprietorship, January 1, 19A	29,000.00
Net Decrease in Proprietorship	$ 4,000.00
Withdrawals	3,000.00
Net Loss for the Year	$ 1,000.00

The above analysis indicates that $3,000.00 of the net decrease was attributable to withdrawals by the owner and $1,000.00 to operating the business at a net loss.

7. A Net Decrease in Proprietorship as the result of Net Loss in excess of Added Investments.

Assume that Mr. Mulford had an equity of $29,000.00 on January 1, 19A, that he had an equity of $25,000.00 on December 31, 19A, and that he had invested $3,000.00 of additional cash during the year.

Proprietorship, December 31, 19A	$25,000.00
Proprietorship, January 1, 19A	29,000.00
Net Decrease in Proprietorship	$ 4,000.00
Added Investments	3,000.00
Net Loss for the Year	$ 7,000.00

A net decrease in proprietorship in a period when the owner increased his investment indicates that the operation of the business resulted in a loss which is the sum of the decrease in proprietorship and the additional investments. The above analysis indicates that in spite of added investments of $3,000.00, the equity of the owner at the end of the year was $4,000.00 less than at the beginning of the year; therefore, the business lost during the year not only the $3,000.00 of added investments but $4,000.00 more.

8. A Net Decrease in Proprietorship as the result of Withdrawals in excess of Net Profit.

Assume that Mr. Mulford had an equity of $29,000.00 on January 1, 19A, that he had an equity of $25,000.00 on December 31, 19A, and that he had withdrawn $5,000.00 of assets from the business during the year.

Proprietorship, December 31, 19A	$25,000.00
Proprietorship, January 1, 19A	29,000.00
Net Decrease in Proprietorship	$ 4,000.00
Withdrawals	5,000.00
Net Profit for the Year	$ 1,000.00

This analysis indicates that although the proprietor withdrew $5,000.00, his equity went down only $4,000.00; therefore, the business must have operated at a net profit of $1,000.00 for the year.

9. A Net Decrease in Proprietorship as the result of Withdrawals in excess of the Added Investments and the Net Profit.

Proprietorship, December 31, 19A	$25,000.00
Proprietorship, January 1, 19A	29,000.00
Net Decrease in Proprietorship	$ 4,000.00
Added Investments	3,000.00
Total	$ 7,000.00
Withdrawals	9,000.00
Net Profit for the Year	$ 2,000.00

The above analysis indicates that the net decrease in proprietorship of $4,000.00 was caused by the owner's withdrawal of $4,000.00 more than the total of his added investments and his net profit for the year.

10. A Net Decrease in Proprietorship as the result of Withdrawals and Net Loss in excess of Added Investments.

DAVID MULFORD
Analysis of Proprietorship
For the Year Ended December 31, 19A

Proprietorship, December 31, 19A	$25,000.00
Proprietorship, January 1, 19A	29,000.00
Net Decrease in Proprietorship	$ 4,000.00
Added Investments	3,000.00
Total	$ 7,000.00
Withdrawals	2,000.00
Net Loss for the Year	$ 5,000.00

The above analysis indicates that the net decrease in proprietorship of $4,000.00 was caused by added investments of $3,000.00 being $4,000.00 less than the total of the $2,000.00 withdrawals and the $5,000.00 net loss for the year.

Analysis of Proprietorship

The purpose of this statement is to explain the difference between proprietorship at the beginning and at the end of a fiscal period, in terms of added investments, withdrawals, and net profit or net loss.

The form of the statement is that followed in the ten illustrations, more particularly in the tenth, where the necessary heading is included.

Solution by Equations

Note: It may be a help to some students to summarize the calculations of this chapter algebraically.

1. Final proprietorship − initial proprietorship = net increase in proprietorship.
2. Final proprietorship − initial proprietorship − added investments + withdrawals = net profit for the period.

In solving equation 1, if the difference results in a figure less than zero, there is a net decrease in proprietorship. In solving equation 2, if the final answer is less than zero, the business has sustained a net loss.

Since added investments and net profit each increase proprietorship while withdrawals and net loss each decrease it, a grouping of like items leads to the following equations:

If a net profit:

Initial proprietorship + added investments + net profit = withdrawals + final proprietorship.

If a net loss:

Initial proprietorship + added investments = withdrawals + net loss + final proprietorship.

Significance of the Chapter

In addition to the main purpose of this chapter, as explained previously, it has an auxiliary purpose of considerable importance—to present some fundamental proprietorship concepts which are essential to an understanding of accounting techniques and results. The method employed in this chapter to explain the difference between the proprietorship at the beginning and at the end of a fiscal period is one which may be followed by a business that has no records, or totally inadequate ones. The Analysis of Proprietorship will be used in this text, as it is used in practice, as a check on another and better method of explaining the change in proprietorship resulting from net profit or loss, which is presented in the next chapter.

QUESTIONS

1. What is meant by a *fiscal period?*
2. In what month and on what day do you think the fiscal year ends for the United States government? For your state?
3. What circumstances might influence an enterprise to have its fiscal year end at a date other than the end of the calendar year?
4. What factors increase net worth?
5. What factors decrease net worth?
6. Under what circumstances is the net increase in proprietorship the same as the net profit for a period?
7. Prove or disprove with figures that a business may have a greater net worth at the end than it had at the beginning of a period although it sustained a net loss for the period.
8. Assume a business was operated at a net profit for a fiscal period and that the owner made both additional investments and withdrawals. Express the equation to solve for the added investments, if all the other items are known.
9. Assume the owner made additional investments and withdrawals and that the business was operated at a net loss during a fiscal period. Set up the equation to solve for the withdrawals, if all other items are known.

10. What is the amount of increase or decrease in proprietorship, if during a fiscal period

a. Assets are decreased $5,000.00 and liabilities are decreased $7,000.00?

b. Assets are increased $2,000.00 and liabilities are decreased $3,000.00?

c. Assets are decreased $3,000.00 and liabilities are increased $2,000.00?

d. Assets are increased $4,000.00 and liabilities are increased $6,000.00?

e. Assets are decreased $6,000.00 and liabilities are decreased $5,000.00?

f. Assets are increased $1,500.00 and liabilities are increased $1,200.00?

g. Assets remain the same and liabilities are decreased $1,700.00?

11. Under what conditions will

a. Net profit exceed the net increase in proprietorship?

b. Net loss exceed the net decrease in proprietorship?

c. Net increase in proprietorship exceed the net profit?

d. Net decrease in proprietorship exceed the net loss?

12. The business of *A* had a net worth a year ago of $25,000.00. Today it has a net worth of $30,000.00. During the year *A* inherited and placed in the business $9,000.00 of cash. He made no withdrawals during the year.

a. Was the business operated at a net profit or net loss for the year and in what amount?

b. From the facts stated above do you think *A* had any net income (net profit) for the year?

13. The business of *B* has a net worth of $20,000.00. A year ago it had a net worth of $18,000.00. During the year *B* made no additional investments but he gave out of the funds of the business $1,000.00 cash to his university endowment fund and $100.00 to the welfare fund of his community. What was the amount of the net profit or net loss of the business for the year?

14. On January 1, 19__ the business of Thomas Lloyd had assets of $30,000.00 and liabilities of $10,000.00. Six months later it had assets of $28,000.00 and liabilities of $6,000.00. During the six months Lloyd withdrew $3,000.00 and gave it to his mother to help her purchase a home. In the same period he placed in the business a note receivable for $1,000.00 which he had inherited from the estate of his father. The note had not matured by June 30, 19__.

a. Would the note be included in the $28,000.00 total of business assets on June 30, 19__?

b. Would the total of the business assets be the same if the note had matured and had been paid by the maker? Explain.

c. What is the net increase or decrease in proprietorship for the six months?

d. Determine the amount of the net profit or loss for the period.

e. What would have been the net worth of the business on June 30, if Lloyd had not made an added investment and a withdrawal of assets?

15. What would be the effect on the capital of an enterprise if it earned $50,000,000.00 in a year and $60,000,000.00 of its cash were distributed to its owners?

16. The business of *C* has a net worth of $40,000.00. During the past year *C* withdrew $7,000.00 cash and operated the business at a net profit of $5,000.00. What was the net worth of the business a year ago?

17. The business of *D* had a net worth of $16,000.00 a year ago. Today it has a net worth of $20,000.00. The business was operated at a profit of $5,000.00 during the year. *D* made no added investments during the year. What did *D* do during the year?

CHAPTER IV

THE STATEMENT OF PROFIT AND LOSS

The prime purpose of the analysis of proprietorship in the previous chapter is to explain the difference between the net worth of a business at the beginning and at the end of a fiscal period in terms of added investments, withdrawals, and net profit or loss. Such a statement shows the amount of the net profit or loss for a fiscal period but it does not disclose the sources and amounts of the income and expenses which resulted in the net profit or loss. This information is essential to the successful management and direction of an enterprise. It is presented in a statement variously known as the statement of profit and loss; the statement of income, profit and loss; the statement of income and expense; the operating statement; and by other titles.

Purposes of the Statement of Profit and Loss

A statement of profit and loss is prepared at the end of each fiscal period to present a summary of the various items of income and expense which have arisen during the period. It should be emphasized that this statement covers the operations of the entire period, in contrast to the balance sheet which pictures the financial condition on a given date. A business is conducted to make a profit, and the final figure of the statement of profit and loss shows whether that object has been realized. In addition, and equally important, statements of profit and loss furnish the owner with operating facts and figures, a study of which may indicate ways of increasing income, reducing expenses, or effecting changes which may result in greater net profits in subsequent periods.

The owner of a business is not the only one interested in the statement of profit and loss. Estimates with respect to the future possibilities of an enterprise are based in part on the results of the past. The owners and, in large-scale enterprises, the directors, the executives, oftentimes even the humblest

employees have an interest in the results shown by such a statement and in the choice of proper policies resulting in part from an analysis of it. Trade and long-term creditors are interested also in the results of the operations of any enterprise to which they have extended credit or loaned funds. Similarly prospective buyers of a business or prospective purchasers of business securities are interested in the trend of the earnings as shown by the statements of profit and loss over a series of fiscal periods. It should be borne in mind that each year the information shown in this statement must be considered in the preparation of the federal and, where required, state income-tax returns.

Income and Expenses

Before explaining the content of the statement of profit and loss, it is necessary to make clear the use of the terms *income* and *expenses*.

Income includes compensation for personal or professional services rendered; gains from sales of and dealings in land, property, business, or other investments; interest earned; rent earned; dividends received; and gains, profits, and earnings from any source whatever. In general it is "the gain derived from capital, from labor, or from both combined."* It is not income if it represents a return of capital or investment.†

Many interpretations of income are made by accountants, economists, jurists, and members of other professions. The definition used here is based on the definition of the Treasury Department in governmental regulations issued to aid in the interpretation of the federal income-tax law.

Gross income in a manufacturing, merchandising, or mining business means the net sales less the cost of goods sold, plus any income from investments (including profits derived from the sale of fixed assets) and from incidental or outside sources.

Income of nonprofit enterprises such as charitable, religious, educational, or social institutions would include gifts available for current use within the period in addition to any or all of those indicated for profit enterprises.

* As defined by the United States Supreme Court in several decisions.

† Many accounting writers consider the actual amount of sales as income. As the figure for sales includes a return of capital it seems better to view as income only the profit arising from sales.

Expenses are all costs incurred to obtain gross income whether payment has been made or not. Ordinary expenses include such items as wages, taxes, supplies, insurance, and depreciation.

Net income (net profit) is the excess of the gross income over the expenses and losses.

Net loss is the excess of the expenses and losses over gross income.

Cash and Accrual Methods of Accounting

There is no necessary relationship between cash receipts and disbursements and income and expenses. The net change in cash may be ascertained by comparing the cash item shown in the balance sheet at the end of the last period with the cash item shown in the balance sheet at the end of the current period. The detailed changes in cash may be determined only from separate records wherein all receipts and disbursements are recorded.

A cash basis of accounting is a system wherein income is not recognized unless it has been received in cash, and expenses are ignored until paid in cash. The accrual basis of accounting is a system wherein income is recognized when earned, whether or not received in cash, and expenses are recognized when incurred, whether or not paid in cash. In any business with opening and closing inventories of merchandise the accrual basis is practically essential.

The mere receipt of cash does not indicate income, nor does every disbursement of cash represent expenses. Money may be received from the sale of an asset at a loss. Cash may come into the business because of the added cash investment of the owner. In these two cases the business income does not increase. Money may be paid out for machinery or be withdrawn by the proprietor without the expenses of the business being affected.

If some merchandise has been sold to customers and cash has not been collected, or if some merchandise has been purchased and has not been paid for in cash, it is obvious that the balance between the cash which has been received for merchandise and the amount which has been paid for merchandise in that particular period is a meaningless figure. To determine the correct income from sales it is necessary to consider all purchases and sales whether for cash or for credit. As most businesses engaged in

selling merchandise have inventories of unsold merchandise, have accounts receivable, and have accounts payable, they are forced to use the accrual basis to determine the net earnings with any degree of accuracy. In this text the accrual basis will be used exclusively.

Illustration of Simple Statement of Profit and Loss

Suppose the following facts pertained to the business of Allan Walton for the year ended December 31, 19__: Merchandise sold amounted to $50,000.00; merchandise on hand at the beginning of the year had cost $2,000.00; merchandise purchased during the year had cost $34,000.00; merchandise on hand at the end of the year had cost $3,000.00. Expenses had been as follows: For salaries $11,000.00; for delivery expenses $1,600.00; for advertising $500.00; for rent $1,500.00; for insurance $300.00; for store expenses $400.00.

ALLAN WALTON

STATEMENT OF PROFIT AND LOSS

For the Year Ended December 31, 19__

Sales (Gross)		$50,000.00
Cost of Goods Sold:		
Inventory of Merchandise, January 1, 19__	$ 2,000.00	
Purchases	34,000 00	
	$36,000.00	
Less:		
Inventory of Merchandise, December 31, 19__	3,000.00	33,000.00
Gross Profit on Sales		$17,000.00
Less Operating Expenses:		
Salaries	$11,000.00	
Delivery Expenses	1,600 00	
Advertising	500.00	
Rent	1,500 00	
Insurance	300.00	
Store Expenses	400.00	
Total Expenses		15,300.00
Net Profit for the Year		$ 1,700.00

In presenting the sources of income and the expenses of an enterprise for a period, it is desirable to use the accepted accounting titles which are both brief and descriptive, *i.e.*, the merchandise sold during the year is called Sales, the merchandise on hand

at the beginning of the year is referred to as Merchandise Inventory, January 1, 19__, merchandise bought during the year is listed as Purchases, and the merchandise on hand at the end of the year is indicated as Merchandise Inventory, December 31, 19__. The various expenses are listed by titles such as Salaries, Delivery Expenses, Advertising, Rent, Insurance, and Store Expenses.

The statement of profit and loss as shown on page 38 presents the facts just considered.

This illustrative statement furnishes Allan Walton, the owner of the business, with concise information about the operations of his business for the past year. He may compare these figures with those of other years; he should study them as he plans for the year which is ahead.

The statement of facts about the Allan Walton business was limited to certain fundamental items. It is possible for a business to have sources of income other than Sales, to have many more expenses than those illustrated, and to have other significant operating facts which were not mentioned. In addition, the expenses of the business should be classified in the statement of profit and loss, if a more exact picture of the results of operations is to be presented. In order to include the other possible items in the statement of profit and loss and to classify the expenses, it is necessary that the profit and loss statement terminology be studied in more detail.

Profit and Loss Statement Terminology

The first item to be shown in a statement of profit and loss is the principal source of income. In a manufacturing, mining, or mercantile business the main source of income is sales of commodities; in a bank it is interest, discount, collection and exchange fees; with brokers or agents it is commissions; with professional people, such as doctors, lawyers, and accountants, who are selling services, it is fees.

The outstanding points to be noted on a statement of profit and loss prepared for a merchant are net sales, cost of goods sold, gross profit on sales, net profit on sales, and net profit for the period.

Net sales is the term applied to the difference between gross

sales and the returns and allowances on sales. The amount of the net sales is the real index of the volume of business transacted.

1. Gross Sales signifies the total contract price of all merchandise sold during the fiscal period.
2. Sales Returns shows the value (ordinarily at original contract price) at which merchandise sold has been returned to an enterprise.
3. Sales Allowances is the title used by the seller to cover reductions subsequently made in the contract price of merchandise sold.

   Sales Returns and Sales Allowances are combined frequently in one title since both are reductions of the gross sales.

Cost of goods sold is the phrase used to describe the cost of the merchandise which was marketed during the period. This term must not be confused with the costs of selling goods, such as salaries and commissions paid to salesmen, delivery expenses, store supplies, and advertising.

In the first period of operation, if all the merchandise purchased was marketed, the cost of goods sold would be the cost of the merchandise bought.

If any merchandise was on hand at the end of the period then the value of this inventory would be subtracted from purchases to determine the cost of goods sold.

In a period when the business both opens and closes with an inventory, the cost of goods sold would be determined by adding the value of the initial inventory to the value of purchases and from this total subtracting the value of the closing inventory.

Other items under this heading must be considered sometimes, such as transportation costs on merchandise purchased, and merchandise returned to or allowances obtained from the seller.

The cost of the initial inventory plus the cost of the merchandise acquired in a period, including transportation costs, represents the value of the merchandise to be accounted for. If the total of the value of the merchandise returned and the amount of allowances obtained on merchandise plus the value of unsold merchandise is subtracted from the value of the merchandise to be accounted for, the balance will be the cost of the merchandise sold (cost of goods sold).

These items may be shown as follows:

Cost of Goods Sold:		
Initial Inventory..............................	$xxxxxxx	
Purchases..............................	xxxxxxx	
Transportation In..............................	xxxxxxx	$xxxxxxx
Less:		
Purchase Returns and Allowances................	$xxxxxxx	
Closing Inventory..............................	xxxxxxx	xxxxxxx
Cost of Goods Sold..............................		$xxxxxxx

An explanation of these terms follows:

1. Purchases is the title applied to the total contract price of all merchandise acquired for the purpose of selling.
2. Transportation In is the title which covers the freight, express, parcel post, cartage, or other costs necessary to get the merchandise purchased to the place where the business wants it. It is an additional cost of the merchandise bought. Another title commonly used is Freight and Cartage In, although it is not so inclusive as the one suggested. The term is never used to cover transportation costs on fixed assets such as machinery and office equipment. To determine the total cost of fixed assets at the time of acquisition, transportation costs are added to the contract price.
3. Purchase Returns and Allowances is the title which represents the value of all merchandise returned by and the amount of price concessions and rebates subsequently obtained by the business on purchases.

Gross profit on sales is the excess of the net sales over the cost of goods sold. It is the total amount of profit before the deduction of any of the expenses of operating the business.

Selling expenses are the costs of marketing or distributing the product. A few typical examples follow:

1. Advertising is the cost to obtain publicity through the agencies of newspapers, magazines, and the radio; the expense of printing and distributing handbills and catalogues; and like expenditures that have as their purpose the ultimate increase of the sales volume.

2. Transportation Out is the title that covers the freight, express, parcel post, cartage, or other costs necessary to send the merchandise to the place indicated by the customer. This item is not treated as a reduction from sales but as an item of selling expense.
3. Delivery Expenses is the title applied to the cost of operating a truck used to deliver merchandise locally. Typical costs are wages of the driver, gasoline, oil, repairs, auto licenses, and depreciation. Transportation Out is used to cover the cost of sending merchandise to a destination not reached by the business truck.
4. Sales Salaries (or Sales Commissions) represent amounts paid or accrued to employees or agents who assist in the direct marketing of the product.
5. Store Expenses include cleaning, wrapping paper, twine, pasteboard cartons, boxes, and other materials needed and used to prepare the goods sold for delivery. Not all the value of supplies purchased in a period is placed in the profit and loss statement; only the amount used is an expense of the period. The balance on hand at the end of the period is indicated in the balance sheet as inventory of supplies.
6. Depreciation of Store Furniture and Fixtures is the term used to describe the estimated decline in the value of store furniture and fixtures caused chiefly by wear and tear.

General and administrative expenses are the costs of those general expenses necessary to the conduct of the business as a unit but which have not been applied directly to departments of the enterprise, as well as the expenses of the executive offices. A few of the customary titles follow:

1. Office Expenses include cleaning, carfare, and supplies such as postage, stationery, carbon paper, billheads, envelopes, and other materials needed in the administration of the business.
2. Office Salaries.
3. Telephone and Telegraph.
4. Property Taxes represent amounts levied by a governmental unit on property, especially land and buildings. There are other forms of taxes, such as federal income tax, inherit-

ance taxes, estate taxes, and special assessment taxes which are not considered as expenses.
5. Bad Debts are uncollectible accounts and notes receivable.
6. Depreciation of Office Furniture and Fixtures.

Net profit on sales is the excess of the gross profit on sales over the selling, and general and administrative expenses.

Net loss on sales is the excess of the selling, and general and administrative expenses over the gross profit on sales.

Other income includes all income other than that obtained from the major purpose for which the business was organized. Some common examples follow:

1. Interest Earned represents income of the business resulting from the loan of its money or credit to others.
2. Purchase Discounts are additional income of the business resulting from reductions obtained from creditors by the payment for merchandise purchases within stated periods.
3. Cash Dividends Received represent receipts of money arising from the distribution of profits by corporations in which shares of stock are owned.
4. Profit arising from the sale, exchange, or conversion of assets other than merchandise, such as stocks or bonds, for more than their book values.
5. Rental Income represents income of the business arising out of property not used in operations but leased to tenants.
6. Commissions Earned represents income earned when the business acts as an agent in the sale of property owned by another.

Other expenses and losses are costs which arise from other than the major operating causes. Some common examples follow:

1. Interest Expense is the cost of borrowing money.
2. Sales Discounts represent reductions made to customers for the payment of bills within stated periods.
3. Extraordinary Losses represent losses such as fire losses and losses arising from the sale, exchange, disappearance, or abandonment of any asset not regularly bought and sold.

Net profit for the period is found by adding other income to the net profit on sales and subtracting other expenses and losses.

If there has been a net loss on sales, there may still be a net profit for the period if other income exceeds the net loss on sales and the other expenses and losses.

Net loss for the period is found by subtracting the other income from the net loss on sales and the other expenses and losses. If the business had a net profit on sales there may still be a net loss for the period if other expenses and losses exceed the net profit on sales and the other income.

The difference between other income and other expenses and losses frequently is added to or subtracted from the net profit or loss on sales.

Form

To illustrate the form of a statement of profit and loss there follows the one prepared for David Mulford.

DAVID MULFORD

Statement of Profit and Loss
For the Year Ended December 31, 19—

Sales (Gross)			$168,000.00
Less: Sales Returns and Allowances			800.00
Net Sales			$167,200.00
Cost of Goods Sold:			
Inventory of Merchandise, January 1, 19—		$ 10,500.00	
Purchases		117,600.00	
Transportation In		1,500.00	
Cost of Goods to Be Accounted For		$129,600.00	
Less:			
Purchase Returns and Allowances	$ 500.00		
Inventory of Merchandise, December 31, 19—	12,600.00	13,100.00	116,500.00
Gross Profit on Sales			$ 50,700.00
Less Operating Expenses:			
Selling Expenses:			
Advertising		$ 8,000.00	
Sales Salaries		17,000.00	
Store Expenses		950.00	
Transportation Out		450.00	
Depreciation of Store Furniture and Fixtures		500.00	
Total Selling Expenses		$ 26,900.00	
General and Administrative Expenses:			
Office Expenses	$ 850 00		
Office Salaries	14,000.00		
Insurance	1,200 00		
Property Taxes	250.00		
Bad Debts	450.00		
Depreciation of Building	400.00		
Depreciation of Office Furniture and Fixtures	100.00		
Total General and Administrative Expenses		17,250.00	44,150.00
Net Profit on Sales			$ 6,550.00
Other Expenses and Losses:			
Interest Expense		$ 550.00	
Sales Discounts		3,200.00	
Loss—Sale of Ideal Radio Stock		2,800.00	
		$ 6,550.00	
Other Income:			
Interest Earned	$ 100.00		
Purchase Discounts	2,700.00		
Cash Dividends Received	200.00	3,000.00	3,550.00
Net Profit for the Year			$ 3,000.00

This statement shows the sources of the income and expenses which resulted in a net profit of $3,000.00 for the twelve months ended December 31, 19__.

A detailed statement such as the illustration just given is essential to the proper management of a business, but the above data may be condensed into the following summarized statement:

DAVID MULFORD

CONDENSED STATEMENT OF PROFIT AND LOSS

For the Year Ended December 31, 19__

Net Sales	$167,200.00
Less Cost of Goods Sold	116,500.00
Gross Profit on Sales	$ 50,700.00
Less Selling, and General and Administrative Expenses	44,150.00
Net Profit on Sales	$ 6,550.00
Less Excess of Other Expenses and Losses over Other Income	3,550.00
Net Profit for the Year	$ 3,000.00

The student should realize that the forms illustrated, while typical, are not to be considered a standard of practice for all types of business as to either terminology or detailed arrangement. The illustrations are for the business of a merchant. Other lines of endeavor would require captions and arrangements better suited to their needs. Even the size of the enterprise may influence arrangement and the extent to which detailed items should be shown in the statement. In a very large establishment the statement may be in the form of a condensed summary with practically all of the summary figures supported by appended schedules of detailed figures.

An absolute standard of captions and form for all businesses is impossible because of the diversifications of business itself. Within given fields of business, however, progress has been and is being made toward standardization. The Interstate Commerce Commission requires railroads to report on a prescribed form, the Federal Reserve Board has suggested a form for manufacturers and merchants and, in some instances, by agreement among themselves, establishments in the same field of endeavor are using standard forms. The increasing publicity

given to the profit and loss statements of the leading companies in itself should help to standardize the statements of like enterprises.

Dual Procedure to Compute Net Profit or Loss

The final result of the statement of profit and loss must agree with the amount of the net profit or loss shown in the analysis of proprietorship. Since the net profit or loss of the analysis of proprietorship is ascertained by comparing the initial and final proprietorship with due regard for additional investments and withdrawals, while the statement of profit and loss results in the same figure after the comparison of income and expense items, it will be realized that in accounting there are two ways to determine the net profit or loss, each of which acts as a check on the other.

Complements the Balance Sheet

The statement of profit and loss and the balance sheet complement each other. The balance sheet shows financial condition at a particular date, usually the last day of the period, while the statement of profit and loss shows the results of operation during the entire fiscal period. In any careful analysis of the financial condition of an enterprise, one must make use of the information shown in both statements.

QUESTIONS

1. What is income? Gross income? An expense? Net income?
2. Name a principal source of income for each of the following: doctors, brokers, lawyers, teachers, salesmen, department stores, banks, insurance companies.
3. *a.* Could a person who did not work have any income? How?
   b. Could a person who had no capital have any income? How?
4. *a.* Income derived from real estate is referred to as __________?
   b. Income derived from the ownership of bonds is referred to as __________?
   c. Income derived from the ownership of shares of stock in corporations is referred to as ______?
   d. Income derived from the ownership of mortgages is referred to as __________?

5. If a person inherited $10,000.00 cash, would the inheritance be income? If he invested the $10,000.00, would the return on the investment for a given period be income?
6. What is a statement of profit and loss? Give some other titles by which it is known.
7. Which statement is the more informative to the management of an enterprise, the statement of profit and loss or the analysis of proprietorship? Explain.
8. In the last year *A* received a salary of $1,000.00 in cash, a cash bequest of $1,000.00, a $1,000.00 present from his mother in cash and $500.00 cash as rent for a property he owned. He gave $200.00 cash to his community welfare fund.
   a. How much cash did he receive?
   b. What was his income for the year?
9. A year ago *B* purchased a property for $10,000.00 cash. During the year he paid for taxes on the property $300.00, for repairs $200.00, and for insurance $100.00. In the same period he received as rent for the property $1,000.00 cash.
   a. What was the gross income from the property?
   b. What were the expenses for the property?
   c. Was there any net income or net loss because of the ownership of the property during the period?
10. *a.* What is meant by the expression *cash basis* of accounting?
   b. What is meant by the expression *accrual basis* of accounting?
11. Are returned sales and allowances considered expenses of an enterprise? Justify your answer.
12. At the beginning of a fiscal period the business of *C* had on hand merchandise which cost $1,000.00. During the year $10,000.00 worth of merchandise was bought. At the end of the year, the merchandise on hand at cost was worth $2,000.00.
   a. What was the cost of the goods purchased?
   b. What was the cost of the goods sold?
   c. What was the cost of the goods which were not sold?
13. Distinguish between *selling expenses* and *general and administrative expenses*.
14. Is there any method of checking the net profit or the net loss figure as shown by a statement of profit and loss? Explain.
15. If the inventory of merchandise at the end of a fiscal period is understated, what is the effect on the Cost of Goods Sold? On the Net Profit for the period? On the Net Worth of the enterprise?
16. What words would describe x in each of the following equations?
   a. Gross Profit on Sales + Cost of Goods Sold = x
   b. Gross Profit on Sales − Net Profit on Sales = x
   c. Value of Goods to Be Accounted For − Cost of Goods Sold = x

17. What part of the statement of profit and loss is affected by

a. Freight In?
b. Sales Returns and Allowances?
c. Freight Out?
d. Sales Discounts?
e. Interest Earned?
f. Purchase Returns and Allowances?
g. Advertising?
h. Purchase Discounts?
i. Office Expenses?
j. Store Expenses?

18. In the preparation of a statement of profit and loss for the retail business of Mr. Edward Andrew, you learn that the following items were omitted or not considered:

a. Wages paid in advance.....	$ 30.00
b. Unpaid sales expenses of..........................	180.00
c. Inventory of Merchandise at the end of the period..	2,850 00
d. Interest accrued but not due on bonds owned.......	300.00

What was the effect of each of these errors on the net profit for the period? What was the effect of all of these errors on the net profit for the period?

19. *a.* Do you believe the following facts indicate favorable or unfavorable changes? Explain.

	Last Year	This Year	Increase
Net Sales......................	$25,000.00	$30,000.00	$5,000.00
Net Profit.....................	7,500.00	8,100.00	600.00

Assume the owner had invested $75,000.00 in the business and that the net profit at the end of last year had been withdrawn.

b. Would your answer be different if it is assumed that the net profit of last year had been left in the business all of this year?

20. Would it be possible for a business to have a net profit for a period, if it had a net loss on sales? How?

21. What is the income of David Mulford in the statement of profit and loss on page 45?

22. Distinguish between the total of cash paid for merchandise and the cost of goods sold.

23. Why isn't the net profit for the period equal to the excess of the cash receipts over the cash disbursements?

CHAPTER V

ACCOUNTS—THEIR CONSTRUCTION

The balance sheet, the analysis of proprietorship, and the statement of profit and loss were considered in the three preceding chapters, to make clear the process of determining the net worth of a business at the close of a fiscal period, and the method of presenting the causes for the variation in net worth throughout the period. The question logically arises, from what sources are the data for these statements obtained?

Definition of an Account

An account, in a broad sense, is a record of the financial transactions relating to a person, enterprise, property, or other item subject to review. In an accounting system, an account is a systematic record of the financial facts pertaining to a particular asset, a particular liability, an income item, an expense item, or a proprietorship item.

Purpose of Accounts

Accounts supply the recorded data for the preparation of accounting statements.

Except for accounts receivable and accounts payable, the numerous changes in the amounts of which make it impossible to remember them and require, therefore, detailed records, it is possible to prepare a statement of assets and liabilities for an enterprise without the use of accounts. The cash in the bank and in the drawer can be determined easily, the inventory of merchandise can be taken and valued, the notes receivable will be found in the safe, the furniture and fixtures, delivery equipment, and other assets can be listed and their values estimated.

Such a method of determining the assets, liabilities, and proprietorship is the plan followed when adequate records are not available. It has certain important disadvantages.

1. There is no assurance that all assets and liabilities have been included. The amount of cash can be determined but

there is no evidence to show that all of the cash received was accounted for or that money paid out during the period was used to benefit the business. In valuing furniture and fixtures and other tangible assets, it is easy to overlook certain small pieces of equipment and to understate the assets to that extent. In order, therefore, to prevent fraud and carelessness, to avoid overlooking or possibly duplicating assets and liabilities, the keeping of a complete set of accounts becomes a necessity to a business enterprise.

2. The impossibility of remembering the history of each asset and liability also necessitates the keeping of adequate records. For example, all the items representing furniture and fixtures may be known, but how shall they be valued? The office safe will have an efficient life span which differs from the typewriter, adding machine, or filing cabinet. Each item may have been bought at a different time and for a different price. These details cannot be remembered and some formal history of each should be kept.
3. From a comparison of balance sheets and a knowledge of additional investments and withdrawals during a period, the amount of the net profit or loss can be determined but not the sources thereof. Complete data for the statement of profit and loss require detailed accounts for both income and expense items.

The Ledger

A ledger is a bound or loose-leaf book or card file of accounts. Since these accounts are the source of information for the statements, they should be arranged in a way to facilitate statement preparation. All accounts which will appear later in the balance sheet should be grouped together, while those that will be found subsequently in the profit and loss statement should be associated in another part of the ledger.

Basic Classes of Accounts

Fundamentally, accounts may be divided into two major classes, real and nominal accounts.

Real accounts are asset, liability, and proprietorship accounts. They are the accounts which make possible the determination of financial condition by means of a balance sheet.

Nominal accounts are those which explain the sources of income and expenses. They constitute the basis for the preparation of the statement of profit and loss. If they were not used, every variation in net worth caused by income or expense would have to be made directly in the account of the owner.

Real accounts which are partly nominal, and nominal accounts which are partly real, may be referred to as *mixed accounts*, but this title does not indicate a third class of accounts. For example, the Prepaid Insurance account may show that $1,000.00 has been paid for insurance premiums. If one-fifth of the insurance has expired then $200.00 of the total of $1,000.00 is nominal in character and represents an expense, while $800.00 is still prepaid, is real in character, and is an asset.

Captions or Account Titles

The title of each account must be descriptive of the class of items that is placed under it; for instance, the asset title Office Furniture and Fixtures would represent all kinds of office equipment such as typewriters, adding machines, desks, and filing cabinets.

Proper captions for specific nominal accounts depend to a great extent on the amount of detail necessary for an adequate control of the business. For example, the title Delivery Expenses may be sufficient for the owner of one truck, while a department store with a fleet of delivery trucks may wish separate accounts for oil and gas, tires, repairs, automobile insurance, drivers' wages, and other expenses incident to the delivery of goods. While the caption of a nominal account should be broad enough to include related expenses or income items, there is danger in selecting one that is too inclusive and not specific enough. Administrative Expenses as a caption would include stationery and printing, office salaries, postage, telephone and telegraph, and depreciation of office furniture and fixtures. Separate accounts for each of these items would make for greater internal control of expenses and therefore are recommended.

Form and Content

There is a variety of forms for accounts, but the most common is the T account, so called because each account in the rough

resembles a capital letter T. At the center of the horizontal line a perpendicular is drawn downward to separate the account into two distinct parts. The space to the left of the perpendicular is termed the *debit* side, while that to the right is called the *credit* side.

To enter an amount on the left side of an account is known as *debiting* or *charging* the account. To enter an amount on the right side of an account is known as *crediting* the account.

That facts and figures may be entered uniformly, all accounts may be ruled as follows:

Dr **Account Caption**

Date		Explanation	F	Amount		Date		Explanation	F	Amount	
Year Month	Day			Dollars	Cents	Year Month	Day			Dollars	Cents
		Debit Side						Credit Side			

The headings of the columns may not be written in an account, but are placed in the illustration so that the student may know the type of information which is found in the several subdivisions.

A caption is placed above and in the center of each account. The year is written only at the top of the date column on each side of the account. The name of a month appears only once on each side, opposite the first item. The day appears opposite the first item on each day. It may appear opposite each item. The explanation column is used to further explain certain items. For the present the F (folio) column will not be used. Its purpose, however, is to provide a space in which to indicate the source of the information which appears opposite it. The amount columns are self-explanatory.

The first item on the left side of the Cash account on page 54, $1,800.00, represents the cash balance on October 1. All the increases in cash which took place during October are debited to the account. The decreases in cash are credited to the account—shown on the right side. The $3,397.00 excess of the debit over the credit side of the account on October 31 is known as the balance of cash. This balance is ascertained, not by subtracting

Cash

19__						19__					
Oct.	1	Balance		1,800	00	Oct.	1	Rent		150	00
	4	Sales		600	00		4	Purchases		450	00
	16	J. R. Reed		700	00		15	Salaries		200	00
	25	Notes Receiv-					28	Notes Payable		500	00
		able		400	00		28	Interest Ex-			
	25	Interest						pense		5	00
		Earned		2	00		*31	Balance		*3,397	00
	30	Sales		1,200	00						
				4,702	00					4,702	00
Nov.	1	Balance		3,397	00						

* This record is sometimes written in red ink to emphasize that it is the difference between the two sides of the account.

the total of the smaller from the total of the larger side, but by increasing the smaller side to the equal of the larger side. The October 31 cash balance of $3,397.00 is then brought down below the double rulings on the debit side to indicate the balance on November 1. It will be noticed that both sides of the account are ruled on the same line so that the transactions of the next month will start opposite each other.

Accounts that have balances are referred to as *open* accounts, while those that total the same on both sides are termed *closed* accounts. An open account, the debit side of which exceeds the credit side, is said to have a *debit balance.* An open account, the credit side of which exceeds the debit side, is said to have a *credit balance.*

The treatment of the Cash account is characteristic of the method of keeping, ruling, and balancing other open asset accounts with several debits and credits. An asset account is debited for increases and credited for decreases in its balance.

A closed account is ruled and totaled as follows:

United Engineering Corporation

19__						19__					
June	10	Sales		1,551	15	June	30	Cash		2,433	37
	24	Sales		882	22						
				2,433	37					2,433	37

Many customers make but one purchase a month and later pay the full amount. If any such account has a debit equal to the credit, it need not be totaled. It is sufficient to draw a single line across the amount columns only:

J. H. Ross

19__						19__					
May	27	Sales		1,691	55	June	C	Cash		1,691	55

If an account has a single debit and no credits, or a single credit and no debits, no rulings or totals are necessary.

Notes Payable

19__						19__					
Oct.	28	G. L. Owens		500	00	Oct.	1	Balance		3,500	00
	31	Balance		5,000	00		20	F. T. Kelly		1,200	00
							28	First National Bank		800	00
				5,500	00					5,500	00
						Nov.	1	Balance		5,000	00

The method of keeping, ruling, and balancing the Notes Payable account illustrates the treatment of other open liability accounts which have several debits and credits. As a liability account has a credit balance, the opening balance is found on the right side. Items which increase the balance are credited to the account—added to the right side. Items which reduce the account are debited to it—entered on the left side.

The first item on the right side of the Notes Payable account, the credit balance of $3,500.00, represents the amount of notes owed by the enterprise at the close of business on September 30. That balance is increased by the credit items of October 20 and 28 which represent, respectively, the issuance of a $1,200.00 note to F. T. Kelly and an $800.00 note to the First National Bank. The account is reduced—debited—on October 28 by the payment of a $500.00 note which was given originally to G. L. Owens. On October 31 the $5,000.00 balance of the account is added to the smaller side—the left side—to indicate there are $5,000.00 of unmatured notes payable outstanding. As of November 1, the

$5,000.00 balance is brought down below the double ruling on the right or credit side.

David Mulford, Capital

19__					19__				
Mar.	1	Withdrawal—Cash	900	00	Jan.	1	Balance—Initial Proprietorship	25,000	00
July	1	Withdrawal—Cash	1,100	00	May	1	Added Cash Investment	3,000	00
Dec.	31	Balance—Final Proprietorship	29,000	00	Dec.	31	Net Profit	3,000	00
			31,000	00				31,000	00
					Jan.	1	Balance—Initial Proprietorship	29,000	00

As an Owner's Capital account has a credit balance, if the enterprise has any net worth, the opening balance of $25,000.00 in David Mulford, Capital account is found on the right side. That balance represents Mulford's capital at the beginning of the fiscal period, January 1, 19__. Items which increase that balance are credited to the account; items which reduce the account are debited to it. The $3,000.00 credit to the account on May 1 represents an additional investment in the business by Mulford. The $3,000.00 credit of December 31 represents an addition to the owner's capital account because of the transfer to it of the $3,000.00 net profit for the year. The $900.00 debit of March 1 and the $1,100.00 debit of July 1 represent reductions in the account because of withdrawals of cash from the business by Mulford. The $29,000.00 balance of the account on December 31 is added to the smaller side—the debit side—to make it equal the total of the credit side. The balance is brought down below the double ruling to indicate that the equity of the owner in the business, at the beginning of the new year, is $29,000.00.

Relationship between the Balance Sheet and Real Accounts

The balances of the real accounts shown in a ledger correspond to the items in the balance sheet arranged in account form, and to the fundamental accounting equation—assets equal liabilities plus proprietorship.

Balance Sheet in Account Form		Ledger Balances, Real Accounts	
Left	Right	Left	Right
Assets	Liabilities Proprietorship	Assets are real accounts with debit balances	Liabilities and Proprietorship are real accounts with credit balances.

Debit and Credit Schedule for Real Accounts

As the method of debiting and crediting the Cash account applies to all asset accounts, the method of debiting and crediting Notes Payable applies to all liability accounts, and the method of debiting and crediting David Mulford, Capital applies to any owner's capital account, it is possible to summarize the procedure of debiting and crediting assets, liabilities, and proprietorship accounts as follows:

Debit	Credit
1. Each increase in an asset	1. Each decrease in an asset
2. Each decrease in a liability	2. Each increase in a liability
3. Each decrease in proprietorship	3. Each increase in proprietorship

The Construction of Nominal Accounts

It has been shown that the nominal accounts are necessary to explain the sources of income and expense. Expenses result in a decrease in proprietorship; therefore they are debited when they increase and credited when they decrease. For example, if a telephone bill is paid, the account Telephone and Telegraph is debited as that expense increased. If an employee pays for a personal long-distance call which was charged to the business, the Telephone and Telegraph account is credited as the expense of that account is decreased. Income items result in an increase in proprietorship, hence they are credited when they increase and are debited when they decrease.

Office Expenses

19—							19—						
Jan.	4	Stationery			25	00	Jan.	30	Supplies returned			3	00
	14	Cleaning			4	00							
	28	Supplies			13	00							

Office Expenses is a typical expense account. It is debited with each item which causes it to increase; it is credited with each item which reduces the account. The $25.00 debit on January 4 represents the purchase of stationery, the $4.00 debit on January 14 the cost of cleaning the office and the $13.00 debit of January 28 the cost of supply items for the office. The $3.00 credit of January 30 represents a reduction in the account because of the return of that amount of the supplies purchased on January 28.

Interest Earned

				19__					
				Jan.	15	On a note		9	00
					22	On a note		7	00
					31	On a note		5	00

Interest Earned is a typical income account. It is credited with each item which increases the account; it is debited with items which reduce the account.

Debit and Credit Schedule for Real and Nominal Accounts

The debit and credit schedule for real accounts must be expanded to include nominal accounts.

Debit	Credit
1. Each increase in an asset	1. Each decrease in an asset
2. Each decrease in a liability	2. Each increase in a liability
3. Each decrease in proprietorship because of:	3. Each increase in proprietorship because of:
a. A withdrawal	*a.* An additional investment
b. An expense	*b.* A decrease in an expense
c. A decrease in income	*c.* An increase in income

This schedule of debit and credit will be applied to specific transactions in later chapters, and the student may find it easier to follow, if it is restated as:

Debit	Credit
1. Each increase in an asset	1. Each decrease in an asset
2. Each decrease in a liability	2. Each increase in a liability
3. Each withdrawal of capital	3. Each addition to investment
4. Each increase in an expense	4. Each decrease in an expense
5. Each decrease in income	5. Each increase in income

Summary of Debit and Credit Schedule
Kinds of Account Balances

Debit	Credit
1. Assets	1. Liabilities
2. Expenses	2. Proprietor's Capital
3. Decreases in Income	3. Income
	4. Decreases in Expenses

To increase the balance of any account add to the larger side; to decrease the balance of any account add to the smaller side. Therefore, to increase an account with a debit balance it must be debited and to decrease it, it must be credited. Conversely, to increase an account with a credit balance it must be credited and to decrease it, it must be debited.

Forwarding Account Totals

Whenever the debit or the credit side of an account page is filled, a new page is opened and either the balance of the account or the totals of both the debit and credit sides are carried forward to it. In such cases the old page should be balanced and the balance carried forward to the new page, with reference on each page to the number of the other page, or if the totals are carried forward, such totals should be shown in ink at the bottom of the old page thus:

Edmund Parke (Page 3)

19__						19__					
Dec.	1	Balance		300	00	Dec.	2	Cash		300	00
	3	Sales		200	00						
	4	Sales		80	00						
	*										
	19	Sales		450	00		18	Notes Receiv-			
	20	Sales		268	00			able		500	00
	20	F'wd to page 8		2,869	00		20	F'wd to page 8		1,570	00

* Irregular lines indicate that not all the items in this account are shown.

The new page would appear:

Edmund Parke (Page 8)

19__						19__					
Dec.	20	F'wd from page 3		2,869	00	Dec.	20	F'wd from page 3		1,570	00

QUESTIONS

1. What is meant by an *account?* Where are accounts kept? If all accounts were classified into two groups, what would be the names of those groups? What accounts enter into each group?
2. What is meant by a *mixed* account?
3. Suppose it were desired to classify all accounts into five groups, can you suggest the five group titles?
4. What is the purpose of accounts?
5. What is a ledger? Is a ledger always a book?
6. Are accounts arranged in a ledger according to any predetermined plan?
7. Would there be an account in the ledger with the title Assets? Liabilities? Proprietorship? Expense? Income?
8. Would you have a ledger account headed Accounts Receivable? Explain. Notes Receivable? Explain.
9. An account is divided into how many main parts? How are these parts referred to?
10. An account with equal amounts on both sides is referred to as what kind of account?
11. An account one side of which is greater in amount than the other is referred to as what kind of account?
12. What do you mean by the word *balance* as used in connection with accounts?
13. An account the left side of which is greater than the right side is said to have what kind of balance?
14. *a.* When is an asset account debited? Credited?
    b. When is a liability account debited? Credited?
    c. When is a proprietor's account debited? Credited?
    d. When is an expense account debited? Credited?
    e. When is an income account debited? Credited?
15. Under what account title in the ledger should each of the following items appear?
    a. An adding machine.
    b. Insurance paid in advance.
    c. An automobile used for delivery purposes.
    d. A note owed by the enterprise.
    e. Money in the safe and in bank.
    f. An office safe.
    g. A note owed to the enterprise.
    h. Ground owned by the enterprise.
    i. Buildings owned by the enterprise.
    j. Showcases, counters, and other equipment used for the display or the selling of goods.

16. The study of what chapter, previous to the present one, helped you to answer Question 15?

17. Complete the following sentences:

a. An account with a debit balance represents ________________.

b. An account with a credit balance represents ________________.

18. How would you know when an account with a credit balance represented a liability? An income? The proprietor?

19. How would you know when an account with a debit balance represented an asset? An expense?

20. State a transaction which would cause an increase in

a. The debit side of the Notes Payable account.

b. The credit side of the Owner's Capital account.

c. The credit side of the Notes Payable account.

d. The debit side of the Notes Receivable account.

e. The debit side of the Office Furniture and Fixtures account.

21. State a transaction which would illustrate

a. An increase in one asset and a decrease in another.

b. An increase in one liability and a decrease in another.

c. An increase in a liability and an increase in an asset.

d. A decrease in an asset and a decrease in a liability.

e. A decrease in an asset and a decrease in proprietorship.

22. Is it possible in the same transaction to have

a. An increase in an asset and an increase in an expense?

b. An increase in a liability and an increase in an expense?

c. An increase in an asset and a decrease in an expense?

d. A decrease in an asset and a decrease in income?

e. A decrease in an asset and a decrease in the owner's capital?

23. Are all real accounts with credit balances liabilities? Explain.

CHAPTER VI

ACCOUNTS—THEIR OPERATION

The last chapter was devoted to an explanation of the composition of accounts. The purpose of this chapter is to show how the accounts may be used to record the transactions of an enterprise and to supply data for the financial statements.

Transaction

A transaction is an occurrence in an enterprise which requires recognition in the accounts. It may be a purchase, a sale, a receipt of cash, or a payment of cash. It may be a more involved occurrence, such as the recognition of the decline in value of an asset over a period of time, because of depreciation, or it may be the very simple decision that a particular item would be better shown under another title, thus requiring a mere transfer of an amount between two accounts.

Transactions Classified

Practically all transactions may be classified into four main groups.

1. Exchange transactions. Those which involve changes in assets, liabilities, or both, but leave proprietorship undisturbed, such as exchanges of
   a. An asset for an asset. The acquisition of one asset for another, as the purchase of an automobile truck for cash, or the receipt of cash in payment of a note receivable.
   b. A liability for a liability. The creation of a new liability for an old one, as the giving of a note payable to a creditor, the note payable taking the place of the previously existing account payable.
   c. An asset for a liability. The acquisition of an asset in exchange for a liability of the same amount, as the purchase of office equipment on credit.

   d. A liability for an asset. The reduction of a liability by the reduction of an asset in similar amount, as the cancellation of a note payable when it is paid in cash.

2. Additional investment and withdrawal transactions. Those which involve changes in assets or liabilities, and proprietorship, as a result of additional investments or withdrawals by the owner.
   a. Increases in assets and proprietorship because of additional asset investments by the owner.
   b. Decreases in liabilities and increases in proprietorship by the owner paying some of the debts of the enterprise from his purely personal funds thus increasing his investment in the business.
   c. Decreases in assets and proprietorship because of asset withdrawals by the owner.
   d. Increases in liabilities and decreases in proprietorship from the transfer to the enterprise of a personal liability of the owner.
3. Profit or loss transactions. Those which involve changes in assets or liabilities as a result of income or expense items. This class involves not only the asset and liability accounts but the nominal accounts as well.
   a. Increases in assets and increases in income, resulting from income items such as the receipt of cash for interest, rent, or commission.
   b. Decreases in liabilities and increases in income, such as the cancellation of an account payable because of commissions earned from a creditor.
   c. Decreases in assets and increases of expenses, such as the payment of cash for wages, salaries, or rents.
   d. Increases in liabilities and increases of expenses, such as the purchase of advertising space on credit.
4. Transfer transactions. Those which arise out of mere book transfers, such as the transfer of an income amount to another title; the transfer of an expense amount to another caption; the transfer of the amount of one asset to another title; or the transfer of the amount of a liability to another caption.

Some transactions involve more than one subheading within a group, *i.e.*, the purchase of an automobile truck partly for cash

and partly on credit is a transaction which involves subheadings *a* and *c* of Group 1. Other transactions involve more than one group, *i.e.*, every sale of merchandise at other than exact cost figures represents a gain or a loss element, hence such a sale is an exchange transaction in part, Group 1, and a profit or loss transaction in part, Group 3.

Double-entry Bookkeeping.

The systematic recording of the facts of the financial transactions of a person or enterprise is known as bookkeeping or account keeping. But not all account keeping is in accord with sound accounting practice, as was pointed out in Chapter I. Some individuals are satisfied with an incomplete system of accounts. It is the purpose of accounts to show the financial condition of an enterprise, the changes therein, and the causes thereof. The only system which will do this is known as *double-entry bookkeeping.*

Double-entry bookkeeping is a system of account keeping wherein all the financial transactions of a person or an enterprise are recorded in a manner to show the effect of each, on the assets, the liabilities, the owner's capital, the income items, and the expense elements. Each transaction is supported by an entry or entries.

Entry

The record of a transaction is spoken of as an entry. Each entry in the double-entry system is in two parts to show both the debit and credit elements involved in the transaction. These two parts, the debit and the credit amounts of each entry, must exactly equal each other. This does not mean that in a given entry there will be but one debit and one credit of equal value. Rather it means that in each entry the sum of the debit amounts must be equal to the sum of the credit amounts regardless of the number of each. This equalization of debits and credits in each entry is referred to as the fundamental basis of the double-entry system. The double feature of each entry with the equalization of the two parts makes possible a complete system of accounts and one the mathematical accuracy of which can be proved.

Application of the Debit and Credit Schedule

For every transaction it is necessary to

1. Analyze the occurrence to determine whether asset, liability, income, expense, or owner's capital accounts are increased or decreased.
2. Apply to each element of the transaction a descriptive accounting caption. If possible, use a ledger account already set up.
3. Apply the debit and credit schedule, keeping in mind that each increase in an account in the case of a new one means increasing it from zero—in other words, opening it.
4. Maintain an equality of debits and credits.

The following seven typical transactions pertaining to the business of S. F. Turner will be used to illustrate the proper method of analysis and procedure:

1. October 1, 19__. Mr. S. F. Turner began a small retail business investing cash $5,000.00, land valued at $3,000.00, a building valued at $10,000.00, and showcases and other equipment for the store valued at $500.00. Mr. Turner made the business assume a liability to A. L. Lloyd in the amount of $500.00.
   a. Business assets, liabilities, and proprietorship increased.
   b. Descriptive titles for the assets are Cash, Land, Building, and Store Furniture and Fixtures. A. L. Lloyd is the account caption for the liability. S. F. Turner, Capital is the appropriate account heading to describe the equity of the owner.
   c. Debit Cash with $5,000.00 because that asset increased.
   Debit Land with $3,000.00 because that asset increased.
   Debit Building with $10,000.00 because that asset increased.
   Debit Store Furniture and Fixtures with $500.00 because that asset increased.
   Credit A. L. Lloyd with $500.00 because that liability increased.
   Credit S. F. Turner, Capital with $18,000.00 as capital increased.

d. The four debit items are offset by the two credit items so the equality of debits and credits is established.

The actual entry for this transaction, as it would appear in the accounts, is as follows:

Cash

19— Oct.	1	Investment		5,000	00						

Land

19— Oct.	1	Investment		3,000	00						

Building

19— Oct.	1	Investment		10,000	00						

Store Furniture and Fixtures

19— Oct.	1	Investment		500	00						

A. L. Lloyd

						19— Oct.	1	Liability Assumed		500	00

S. F. Turner, Capital

						19— Oct.	1	Investment		18,000	00

2. October 1, 19—. Mr. Turner bought stationery and miscellaneous office supplies from the Pennsylvania Stationery Store for $25.00 cash.
   a. These supply items will shortly be consumed and should be considered an expense rather than an asset, hence expenses have increased and assets decreased.
   b. Office Expenses and Cash are descriptive captions.
   c. Debit Office Expenses $25.00 because that expense account increased.
   Credit Cash $25.00 as that asset account decreased.

d. The equality of debits and credits is apparent in a simple transaction such as this which involves but one debit and one credit.

The actual entry for this transaction requires the opening of a new account, Office Expenses, which is debited for $25.00. The credit of $25.00 to Cash is made in the Cash account which was opened in the entry for the first transaction. A debit or a credit to an account which is on the ledger is entered in that account. A debit or a credit to an account which is not in the ledger requires the opening of such new account.

3. October 1, 19__. A typewriter and desk were purchased for $180.00 cash from the Excelsior Office Equipment Company.
   a. This is an exchange of one asset for another. It is not necessary to set up an account with the Excelsior Office Equipment Company since payment was made at once.
   b. Office Furniture and Fixtures and Cash accounts are affected.
   c. Debit Office Furniture and Fixtures with $180.00 because of the increase in that asset account.
   Credit Cash with $180.00 because of the decrease in that asset account.
4. October 1, 19__. Merchandise was purchased from T. F. Gordon for $1,500.00; $500.00 in cash was paid and a 60-day 6 per cent interest-bearing note for the balance was given.
   a. The asset Merchandise Inventory increased $1,500.00, another asset, Cash, decreased $500.00, and liabilities increased $1,000.00.
   b. As records are not kept in a small retail business to show each item in the inventory of merchandise, the only debit account affected by the acquisition of the merchandise is the account, Purchases, which is charged with the price of all merchandise acquired by the business for the purpose of selling. The asset Cash decreased and the liability Notes Payable increased.
   c. Debit Purchases with $1,500.00 as that account increased.
   Credit Cash with $500.00 as that asset decreased.
   Credit Notes Payable with $1,000.00 as that liability increased.

d. The one debit item is the equal of the two credit items, so equality is maintained.

5. October 2, 19—. Mr. Turner sold merchandise that had been bought for $70.00, to P. R. Dunn for $100.00 on account. Terms 2/10, n/30. *On account* is the expression which indicates that the transaction is a credit one.
   a. The asset claims against customers increased $100.00. The merchandise inventory decreased $70.00 and the business made a gross profit of $30.00.
   b. The account P. R. Dunn will designate the particular account receivable.
   To record the sale of the merchandise the total sales price is placed in the account, Sales. No attempt is made at this point to separate the sales into cost and profit.
   c. Debit P. R. Dunn with $100.00 because an increase took place in that asset account for that amount. The *terms* 2/10, n/30 mean that P. R. Dunn is offered a discount of 2 per cent if he pays this bill within 10 days, otherwise he has 30 days in which to pay. At this time there is no certainty that he will pay within the discount period, so he must be charged the full amount.
   Credit Sales with $100.00 because an increase took place in that income account.
6. October 8, 19—. A $500.00 check was sent to A. L. Lloyd, a creditor, in full of account. The expression *in full of account* signifies the complete satisfaction of a debt.
   a. The liability to Lloyd and the asset Cash are decreased.
   b. This transaction affects the accounts of A. L. Lloyd and Cash.
   c. Debit A. L. Lloyd for $500.00 because that liability account decreased.
   Credit Cash for $500.00 because that asset decreased.
7. October 12, 19—. A check was received from P. R. Dunn for $98.00, in full of account for his purchase of ten days ago.
   a. The asset Cash increased, the asset claim against a customer decreased, and an expense account increased.
   b. The assets Cash and P. R. Dunn are involved as is an expense account. As P. R. Dunn was debited when he

purchased the goods, he must be credited now. Sales Discounts is a descriptive caption to indicate the expense of discounts taken by customers for payments made within the discount period.

c. Debit Cash $98.00 as that asset increased.
Debit Sales Discounts with $2.00 as that expense item increased.
Credit P. R. Dunn with $100.00 as that asset account decreased that amount.

The following ledger accounts are arranged to facilitate statement preparation as suggested in Chapter V; they show the debits and credits of the above transactions:

Cash (Page 1)

19—						19—					
Oct.	1	Investment		5,000	00	Oct.	1	Office Expenses		25	00
	12	P. R. Dunn		98	00		1	Office Equipment		180	00
							1	Purchases		500	00
							8	A. L. Lloyd		500	00

P. R. Dunn (Page 2)

19—						19—					
Oct.	2	Sales		100	00	Oct.	12	Cash		100	00

Land (Page 3)

19—											
Oct.	1	Investment		3,000	00						

Building (Page 4)

19—											
Oct.	1	Investment		10,000	00						

Store Furniture and Fixtures (Page 5)

19—											
Oct.	1	Investment		500	00						

Office Furniture and Fixtures (Page 6)

19—											
Oct.	1	Desk and Typewriter		180	00						

A. L. Lloyd (Page 7)

19__						19__					
Oct.	8	Cash		500	00	Oct.	1	Liability Assumed		500	00

Notes Payable (Page 8)

						19__					
						Oct.	1	T. F. Gordon		1,000	00

S. F. Turner, Capital (Page 9)

						19__					
						Oct.	1	Investment		18,000	00

Sales (Page 10)

						19__					
						Oct.	2	P. R. Dunn		100	00

Purchases (Page 11)

19__											
Oct.	1	T. F. Gordon		1,500	00						

Sales Discounts (Page 12)

19__											
Oct.	12	P. R. Dunn		2	00						

Office Expenses (Page 13)

19__											
Oct.	1	Books, Stationery		25	00						

Since the debits and credits of each transaction are equal, the sum of the debits and the sum of the credits should equal. It follows, therefore, that the sum of the debit totals and the sum of the credit totals of the accounts in a ledger should equal. It is also true that the sum of the accounts with debit balances and the sum of the accounts with credit balances should equal.

The following table summarizes the figures shown by the above ledger both by totals and by balances:

Ledger Accounts	Totals		Balances	
	Debit	Credit	Debit	Credit
Cash	$ 5,098.00	$ 1,205.00	$ 3,893.00	
P. R. Dunn	100.00	100.00		
Land	3,000.00		3,000.00	
Building	10,000.00		10,000.00	
Store Furniture and Fixtures	500.00		500.00	
Office Furniture and Fixtures	180.00		180.00	
A. L. Lloyd	500.00	500.00		
Notes Payable		1,000.00		$ 1,000 00
S. F. Turner, Capital		18,000.00		18,000.00
Sales		100.00		100.00
Purchases	1,500.00		1,500.00	
Sales Discounts	2.00		2.00	
Office Expenses	25 00		25.00	
	$20,905 00	$20,905.00	$19,100.00	$19,100.00

Proprietor's Personal or Drawing Account

If the owner of an enterprise withdraws business assets for his personal use, the amounts may be debited to his Capital account as shown in Chapter V. At the time of such withdrawals, unless they are exceptionally large amounts, the owner does not consider that he is reducing his investment in the business, nor is he, if the accumulated current profits are in excess of his withdrawals. In order to show his personal transactions with his business more clearly, and not to disturb his Capital or Investment account during a period, it is general practice to place all such proprietor's personal items in a separate account known as the Proprietor's Personal or Drawing account. This plan merely divides into two accounts the Owner's Capital account as it has been considered heretofore. Where a Personal or Drawing account is used, the Owner's Capital account seldom receives a debit or credit during a period. The Capital account is credited for the amount of the original investment, thereafter it is debited or credited for such items as a decrease of capital by the withdrawal of a large sum, or a deliberate increase of capital by the investment of an additional substantial sum.

When merchandise and ordinary amounts of cash are withdrawn by the owner, the debits are to the Personal account. If merchandise is withdrawn at cost price, as is usual, the credit record should be made to Purchases because the transaction is not a sale within the usual meaning of that word; it is a non-profit transaction equivalent to the withdrawal of any other asset by the owner. In practice, merchandise withdrawals at cost price often are credited to the Sales account, a minor error since such withdrawals constitute a relatively insignificant part of total sales. Merchandise withdrawn at any figure in excess of cost should be credited to Sales.

QUESTIONS

1. What is the purpose of accounts?
2. Into what two classes may accounts be divided?
3. Accounts may be divided into five classes. Name them.
4. What is the accounting meaning of a *transaction?*
5. Do all business transactions involve expense or income elements? Explain.
6. The *nominal* accounts may be called explanation accounts. What do they explain?
7. Is it possible for an enterprise to earn an income without its assets increasing?
8. Is it possible for an enterprise to have an expense without its assets decreasing?
9. The recording of the facts of the financial transactions of an enterprise is known by what title?
10. The accounting record of a transaction is known as an __________?
11. The accounting record of a transaction may be divided into how many parts? By what titles are these parts known?
12. Does an entry consist of just one *debit* and one *credit?* Explain.
13. What is the fundamental basis of the double-entry bookkeeping system?
14. Give the rule for debiting Assets. Liabilities. Income accounts. Expense accounts. The Proprietor's account.
15. Give the rule for crediting accounts.
16. Cite a business transaction to illustrate each of the following combinations of the debit and credit schedule:
    a. Increase in an asset and an increase in income.
    b. Increase in an expense and an increase in a liability.
    c. Decrease in a liability and a decrease in an asset.
    d. Decrease in the Owner's Capital and an increase in a liability.
    e. Increase in an asset and an increase in a liability.

f. Increase in an expense and a decrease in an asset.
g. Increase in an asset and a decrease in an expense.

17. Without using figures give the entries for the following transactions:
a. Investment by the owner of cash, merchandise, and notes receivable.
b. Assumption by the business of the personal liability of the owner on a note.
c. Receipt of a note from a customer.
d. Receipt of a bill from the Clinton Carting Company for delivering merchandise to customers. The bill is to be paid at the end of the month.
e. The sending of a check to a creditor for a purchase of ten days ago less the discount.
f. The withdrawal of merchandise at cost by the proprietor.
g. The withdrawal of merchandise at sales price by the proprietor.

18. Give the entries for the following transactions:
a. The sale to Ralph Clements for $1,000.00 of merchandise which had cost $800.00. The 60-day 6 per cent interest-bearing note of Clements is received in payment.
b. The receipt, at the maturity of the note mentioned in part *a* above, of a check from Ralph Clements in full payment of the note and interest.
c. The receipt of a check from a customer, within the discount period, for a $500.00 sale which was subject to 2 per cent discount.
d. The cash payment to a customer for goods returned today. The returned goods had cost the enterprise $16.00 and had been sold to the customer for $30.00.
e. The granting of a $25.00 credit to a customer for goods returned today.

19. Give the entries for the following transactions:
a. H. Appleton began business investing cash $5,000.00.
b. Appleton purchased merchandise from J. Murta for $1,000.00 cash.
c. Appleton purchased merchandise from S. Supplee on account $1,000.00.
d. Appleton purchased an office desk, a chair, and a filing cabinet from H. Blair for $120.00 and gave his 30-day note in payment
e. Appleton sold merchandise to J. Proctor for cash $200.00.
f. Appleton sold merchandise to R. Gamble on account $300.00.
g. Appleton sold merchandise to L. Smith $400.00 and accepted Smith's 30-day note in payment.

20. Give the entries for the following transactions:
a. Paid one month's rent in cash $150.00 to W. Quick and Brothers, real-estate agents.

b. Paid R. Wilson, one of the salesmen, a commission of $75.00 in cash.

c. Purchased various supply items for the office from Hopkins and Company, for cash $20.00.

d. Received a check for $90.00, six months' interest on the $3,000.00, 6 per cent A. B. C. Company bonds owned by the enterprise.

e. Paid salaries as follows: Office force $100.00; sales force $150.00.

f. Purchased an automobile truck for delivery purposes from B. Earnshaw and Company, for cash $800.00.

g. Paid B. Earnshaw and Company, for gas and oil for the truck $3.30 cash.

h. Sent a check for $12.00 to the state department of motor vehicles for license plates for the automobile truck.

21. Could proprietorship be represented on the ledger in just one account? If two accounts are used for this purpose, what are they called? Assuming the use of two accounts to be good practice, as is the case, how do you justify it?

22. Assuming two accounts with the owner on a ledger, which one would you designate as the main account? What kind of balance should that account have, ordinarily? Why?

23. If the personal account of the owner is charged for withdrawals and credited with the net profit for the period, what would its balance represent, if it is assumed there were no additional investments? Explain.

24. If no drawing account is kept for the proprietor, under what conditions will the balance of his capital account agree with the net worth of the business at the beginning of the year?

25. If no drawing account is kept for the proprietor, will the balance of his capital account agree with the net worth of the business at the end of the year? Why or why not?

26. In a retail business why is it customary to have one account for notes receivable and an individual account for each account receivable?

CHAPTER VII

JOURNALIZING AND POSTING

Although it is possible to analyze business transactions into their respective debits and credits and to insert the results directly into the ledger accounts, as was done in the preceding chapter, this procedure is not advisable ordinarily for the following reasons:

1. There will be no one place where a complete entry may be viewed. If a transaction involves several debits and credits it will be extremely difficult to trace it through the ledger.
2. A chronological record of the entries will be lacking. It should be possible to find a complete history of the transactions arranged in the order of their happening.
3. It is not possible for more than one person to work on a ledger at a time. Large establishments are forced to use a number of ledgers and many people to care for their thousands of accounts. Entering transactions directly in the ledger presumes one person will make the complete entry.
4. The space in the ledger is too limited to permit adequate explanations to be made.
5. Direct entries in the ledger make it extremely difficult to locate errors, such as
   a. Omitting a debit or a credit item.
   b. Posting a debit or credit item to the wrong side of an account.
   c. Dropping or adding a cipher, or ciphers, or reversing figures in entering the debit and credit items.

It is desirable, therefore, that an accounting system provide a place where each complete entry with adequate explanation may be made in the order of its happening. The journal is such a place.

The Journal

A journal, in a broad sense, is a chronological record of transactions. In a double-entry system of accounts the *journal* is a

book of original record in which is set forth for each transaction, the date, the debit and credit items and amounts involved, as well as an adequate explanation.

The journal does not replace, it precedes the ledger. The journal is the original book in which the entries are recorded as they happen. The ledger is the final book to which the debits and credits of the journal are transferred so that they may be assembled under their respective account titles.

The Journal—Form

With occasional, minor variations, the form of the journal illustrated below is the one in common use.

JOURNAL

Date		Accounts and Explanation	F	Debit Amounts		Credit Amounts	
Yr Month	Day			Dollars	Cents	Dollars	Cents

The headings of the columns indicated in the above illustration may not be written in the journal, but are placed here so that the student may know the type of information which is found customarily in the several columns. The F (folio) column is for reference purposes; its use is explained later in this chapter.

The Journal Entry—Its Composition

The process of making the original entries for transactions is called journalizing.

Each journal entry is composed of four parts:

1. The date. The date on which the transaction occurred is placed in the columns at the left of the page.
2. The debit and credit accounts involved. The debits are placed close to the left margin of the account and explanation section. The credits are indented uniformly directly under the debits.
3. The debit and credit amounts involved. Each debit amount is entered in the left and each credit amount in the right amount column.

4. An explanation. The explanation is started on the line under the last credit item. It is a supplementary statement about the transaction which, with the debit and credit parts of the entry, should describe adequately the circumstances of the transaction to one who understands bookkeeping. The chief purpose of the explanation is to help make clear the entire entry whenever reference may be made to it.

The Journal—Illustration

The form in which an entry is recorded is important as a means of sharply distinguishing debit from credit items that errors may be avoided in transcribing these items to the ledger. In order that each entry may stand out distinctly it is common practice to skip a line between entries.

The journal entries which follow are those for the transactions which were used to illustrate the application of the debit and credit schedule in the preceding chapter.

JOURNAL (Page 1)

Date		Accounts and Explanation	F	Debit Amounts		Credit Amounts	
19—							
Oct.	1	Cash	1	5,000	00		
		Land	3	3,000	00		
		Buildings	4	10,000	00		
		Store Furniture and Fixtures	5	500	00		
		A. L. Lloyd	7			500	00
		S. F. Turner, Capital	9			18,000	00
		Mr. Turner began business today investing assets and a liability as indicated above.					
		Office Expenses	13	25	00		
		Cash	1			25	00
		Stationery and miscellaneous office supplies bought for cash at the Pennsylvania Stationery Store.					
		Office Furniture and Fixtures	6	180	00		
		Cash	1			180	00
		Purchased typewriter and desk for cash from the Excelsior Office Equipment Company.					

	Purchases	11	1,500.00		
	Cash	1		500.00	
	Notes Payable	8		1,000.00	
	Purchased merchandise from T. F. Gordon giving cash $500.00 and a 60-day 6 per cent interest-bearing note for the balance.				
2	P. R. Dunn	2	100.00		
	Sales	10		100.00	
	Sold merchandise to P. R. Dunn. Terms 2/10, n/30.				
	*			†(Page 5)	
8	A. L. Lloyd	7	500.00		
	Cash	1		500.00	
	Sent check to A. L. Lloyd to settle indebtedness in full.				
	*			†(Page 13)	
12	Cash	1	98.0C		
	Sales Discounts	12	2.00		
	P. R. Dunn	2		100.00	
	Received check from P. R. Dunn for sale of October 2 less discount.				

* Irregular lines indicate page breaks.
† Indicate journal page number.

Posting

Transferring the debit and credit items from a journal to their respective accounts in a ledger is known as posting. The exact names of the accounts used in the journal should be carried to the ledger. For example, it would not be correct to debit Expenses in the journal and later transfer that debit to the Office Expenses account in the ledger even though it has been indicated clearly in the explanation that it is an item of office expense. In this case, Office Expenses should have been debited in the journal.

Posting may be done at any time but it must be completed before the financial statements can be prepared. It is advisable to keep the more active accounts posted to date. For example, the bookkeeper should be able to tell at any time the cash balance, what a customer owes, and the amount owed to each creditor.

Considerable freedom is permitted in the order in which accounts are posted. Some bookkeepers prefer to post all of the

debits first and avoid shifting from one side of the accounts to the other. Others will select and post first all of the debits and credits on one page that affect a particular account. Still others prefer to make complete postings of each entry before proceeding to the next entry. This last method is the one recommended to the student; post each debit and credit item as it appears in the journal.

The F (folio) column in the journal is used at the time the debits and credits are posted to the ledger, to indicate the pages of the ledger on which the accounts are located. The folio column in the ledger is used to indicate the page numbers of the journal from which the entries are posted. Thus there are cross references in both the journal and the ledger.

An index of the accounts should be made in the front of the ledger.

The Ledger

The ledger accounts for the transactions which were journalized in this chapter appear below. Since each ledger record includes a reference to the page of the journal on which the complete entry is shown, it is not necessary to place anything in the explanation columns of the accounts. The reader will notice that in order to illustrate better the use of the folio columns in the ledger, it has been assumed that the next to the last journal entry was made on journal page 5, and that the last entry was on page 13 of the journal.

Cash (Page 1)

19__						19__					
Oct.	1		1	5,000	00	Oct.	1		1	25	00
	12		13	98	00		1		1	180	00
							1		1	500	00
							8		5	500	00

P. R. Dunn (Page 2)

19__						19__					
Oct.	2		1	100	00	Oct.	12		13	100	00

Land (Page 3)

19__											
Oct.	1		1	3,000	00						

Buildings (Page 4).

19—											
Oct.	1		1	10,000	00						

Store Furniture and Fixtures (Page 5)

19—											
Oct.	1		1	500	00						

Office Furniture and Fixtures (Page 6)

19—											
Oct.	1		1	180	00						

A. L. Lloyd (Page 7)

19—						19—					
Oct.	8		5	500	00	Oct.	1		1	500	00

Notes Payable (Page 8)

						19—					
						Oct.	1		1	1,000	00

S. F. Turner Capital (Page 9)

						19—					
						Oct.	1		1	18,000	00

Sales (Page 10)

						19—					
						Oct.	2		1	100	00

Purchases (Page 11)

19—											
Oct.	1		1	1,500	00						

Sales Discounts (Page 12)

19—											
Oct.	12		13	2	00						

Office Expenses (Page 13)

19—											
Oct.	1		1	25	00						

The ledger summarizes under the respective account titles all the debits and credits which appear in the journal for each title. It thus facilitates the determination of account balances (see Chap. V).

QUESTIONS

1. What is a *journal?*
2. In practice, does the journal entry precede or follow the ledger entry of a transaction?
3. If all journal entries are posted to a ledger, why have a journal? Why have a ledger?
4. What are the various parts of a journal entry?
5. What is meant by *journalizing? Posting?*
6. In an entry, which accounts are expressed first, the debits or the credits? Which are shown on the left side? Which amounts are shown in the right money column?
7. Give the various parts of the rule for debiting accounts. For crediting accounts.
8. May items posted from the journal be placed under different account titles in the ledger? Why?
9. Is there any cross reference between the journal and the ledger? Explain.
10. Is it desirable to keep ledger postings up to date? Why?
11. If you desired to ascertain how much a customer owed, where would you look? Why?
12. If you wanted to use book figures for balance sheet or statement of profit and loss purposes, what book would you use? Why?
13. Is a journal a chronological or an alphabetical record of transactions?
14. Are accounts in a ledger arranged according to any predetermined plan? Explain.
15. Does a journal entry consist necessarily of only one debit and only one credit? Explain.
16. Are the following statements true or false? If necessary, qualify your answer.
    a. In a given journal entry there may be ten debits and only one credit.
    b. When an expense account is debited some asset account must be credited.
    c. The journal and the ledger contain the same information.
    d. The ledger gives more details about a transaction than the journal does.
    e. The object of accounting is to prepare a systematic record of the transactions of a business.

f. Debiting an account increases its balance.
g. An increase in an income account is credited.
h. A decrease in a liability account is debited.

17. Omitting dates and explanations, give the entries for the following transactions:

a. Mr. X began business investing cash $1,000.00, a note signed by Mr. C for $200.00, and a claim on Mr. D for $50.00.
b. Mr. X purchased merchandise on account $1,000.00 from Mr. E.
c. Mr. X purchased merchandise for cash $300.00 from Mr. F.
d. Mr. X purchased merchandise from Mr. G for $400.00 and gave his 30-day note in payment.
e. Mr. X sold merchandise on account $300.00 to Mr. H.
f. Mr. X sold merchandise for cash $250.00 to Mr. I.
g. Mr. X sold merchandise to Mr. L for $200.00 and accepted Mr. L's 30-day note in payment.
h. Mr. X paid $500.00 cash on account to Mr. E.
i. Mr. X paid $400.00 to Mr. G in payment of a 30-day note.
j. Mr. X received $300.00 cash from Mr. H in full of account.
k. Mr. X received $200.00 cash in payment of the note of Mr. L.

18 What business transaction occurred in each of the following instances?

a. Notes Receivable was debited and J. Jones was credited.
b. Proprietor's Capital account was debited and Notes Payable was credited.
c. R. Croft was debited and Notes Payable was credited.
d. Cash was debited and Notes Payable was credited.
e. Notes Receivable was debited and Proprietor's Capital was credited.
f. Notes Payable was debited and Cash was credited.
g. Notes Payable was debited and Proprietor's Capital account was credited.
h. H. Leidy was debited and Sales was credited.
i. Purchases was debited and E. Mead was credited.
j. Office Expenses was debited and H. Hess was credited.
k. Office Furniture and Fixtures was debited and Cash was credited.

19. What entry is necessary to record each of the following transactions? You are to assume that any necessary entries on prior dates were made properly. All of these transactions are not for the same enterprise.

a. Sent a check for $1,470.00 to the Elite Manufacturing Company, in payment for our merchandise purchase of eight days ago, which purchase was subject to a 2 per cent discount if paid within ten days.

b. Received a check for $1,407.00 from T. H. Eddy in payment for principal and interest on his $1,400.00, 30-day, 6 per cent interest-bearing note which matured today.

c. Gave a credit of $100.00 to W. E. Fulton, a customer, for defective merchandise returned by him.

d. The merchandise returned by W. E. Fulton was resold for $60.00 cash to A. S. Buhl.

e. The proprietor took home postage stamps worth $5.00 and envelopes worth $2.00.

f. Sold the A. B. C. Company stock for $1,600.00 cash. This stock had been purchased some months ago for $1,500.00.

g. A $10.00 credit memorandum was sent to T. M. Poole, a customer, because of an error in addition on an invoice sent to him several days ago.

h. A check was sent to the Pennsylvania Coal Company for coke purchased to heat the store. The $80.00 bill had been left last week by the driver of the coke truck and had been recorded by our bookkeeper.

i. In payment for merchandise sold R. B. Edgar today, he gave us a United States government bond at par $100.00, a noninterest-bearing note for $400.00 signed by G. I. Pitt, a customer of his, and $100.00 cash.

j. Clipped and cashed United States government bond interest coupons amounting to $40.00.

k. The proprietor did not take his $75.00 weekly salary.

l. Purchased for $15,000.00 the land and building we were renting. The land was valued at $5,000.00 and the building at $10,000.00. We were allowed $150.00 for unexpired rent. We gave in payment a first mortgage for $10,000.00 and a check for the balance.

m. In part payment of his salary, a store clerk took merchandise at cost $10.00.

CHAPTER VIII

BOOKS OF ORIGINAL ENTRY

The journal and the ledger which were explained in the preceding chapters constitute the fundamental accounting books. The recording of debits and credits for transactions, first in an original entry record and later in a ledger, constitutes the fundamental method of making records in accounting books.

The Need for Additional Journals

It is possible to keep complete records for a small enterprise with one journal and one ledger. Such a system is limited, however, to the ability of one or two persons to record the debits and credits for all transactions in the journal and to post every debit and credit to the ledger. Such a system is inelastic. It makes no provision for dividing and specializing the office labor and does not take advantage of simplifications in methods of recording and posting which are possible without disturbing the fundamental principles of debit and credit.

A bookkeeping system should be designed and operated to avoid waste of effort and should be sufficiently elastic to expand and cover any reasonable growth in the volume of transactions of the business.

The ledger, since it is a book of final entry which includes very much briefer records of transactions than the journal, does not require expansion or division with the same degree of necessity as the journal does. If one ledger is not adequate for an enterprise, it is a simple matter to add another. The expansion of the ledger in accord with modern practice will be considered, however, in a later chapter.

Although it is possible to record all the financial transactions of a small enterprise in one journal and one ledger, even the smallest enterprises may find it economical, hence advisable, to divide the journal into a number of special journals.

Various Books of Original Entry

The journal is divided on the basis of the various types of transactions which occur frequently, *i.e.*, sales of merchandise, purchases of merchandise, receipts of cash, and disbursements of cash. A special journal for transactions of the same character is possible for the reason that all such transactions result in a debit or a credit to the same account. Every sale of merchandise, regardless of whether it is made for cash, for a note, or on account to a customer, represents an increase in sales income. In this respect, every sale of merchandise is just like every other sale of merchandise; hence it is possible to have a special original entry book for sales of merchandise alone. The credit postings of this book are made always to the Sales account. Similarly every disbursement of cash, no matter to whom or why paid out, represents a decrease in the asset Cash. All cash disbursements are alike to that extent (credits to Cash), hence they may be placed in a special cash disbursements journal.

Whenever transactions of a similar nature happen with sufficient frequency to warrant it, a special journal is provided for that class of transactions. In view of the diversity of business itself, it is not to be expected that all enterprises will use the same special books of original entry. There are certain types of transactions that are so common to all business, *i.e.*, cash receipts and cash disbursements, that the special journals for the recording of them (cash receipt book and cash disbursements book) are in popular use. There are other types of transactions that are so frequent with mercantile and manufacturing establishments, *i.e.*, sales of merchandise and purchases of merchandise, that the special journals for them (sales journal and purchase journal) are common within those fields.

The books of original entry so far indicated—sales journal, purchase journal, cash receipts book, and the cash disbursements book, together with the journal itself—are the ones in most popular use. When special journals are provided, the journal is named the general journal and is used for the recording of those transactions for which special journals have not been provided.

Form and Content

A journal sheet, ruled as already illustrated, suffices, when properly captioned, for any one of the special journals, in its

simplest form. The first column is used for the date, month and day, with the year indicated at the top on each page. The account and explanation column is used to record the accounts involved by the transactions of the particular book. This wide column has other uses which vary somewhat between the several journals as will be noticed in the illustrations. The third column is used for folio numbers to indicate the pages of the ledger to which the items are posted. The use of the two money columns similarly varies in the different journals.

Each journal book may be a separate book with its own cover, or it may be just a section of one large book in which all the journals are kept.

Sales Journal Illustrated and Explained

SALES JOURNAL

Date		Account, Terms, and Detail	F	Items		Customer Debit	
19__			*				
Jan.	2	A. R. Douglas, 2/10, n/30	2				
		10 tons Egg coal @ $11		110	00		
		5 tons Pea coal @ $7		35	00	145	00
	13	W. B. Harris, n/30	3				
		20 bags Lime @ .60				12	00
	24	R. S. Hamilton, 2/10, n/30	4				
		8 tons Buckwheat coal @ $5		40	00		
		4 tons Pea coal @ $7		28	00		
		3 tons Egg coal @ $11		33	00	101	00
	29	H. A. Dawson, 2/10, n/30	5				
		5 tons Egg coal @ $11		55	00		
		2 tons Pea coal @ $7		14	00	69	00
	30	W. B. Harris, 2/10, n/30	3				
		10 tons Egg coal @ $11		110	00		
		6 tons Buckwheat coal @ $5		30	00	140	00
	31	O. Boyd Wilson	6				
		15 bags Lime @ .60				9	00
	31	Sales credit	28			476	00

* The figures in any folio column are not inserted until the transactions are posted to the ledger.

In view of the fact that it is customary for a vendor to send a sales invoice or bill to each customer for each charge sale and to

retain a carbon duplicate which is numbered and filed, it is not necessary to record the details of sales in the sales journal. A reference in the sales journal to the invoice number indicates where the details may be found. The sales journal illustrated on page 86 is abbreviated, therefore, to the following:

SALES JOURNAL

Date		Accounts Receivable	Terms	F	Sales Invoice Number	Customer Debit	
19__							
Jan.	2	A. R. Douglas,	2/10, n/30	2	1	145	00
	13	W. B. Harris,	n/30	3	2	12	00
	24	R. S. Hamilton,	2/10, n/30	4	3	101	00
	29	H. A. Dawson,	2/10, n/30	5	4	69	00
	30	W. B. Harris,	2/10, n/30	3	5	140	00
	31	O. Boyd Wilson		6	6	9	00
	31	Sales credit		28		476	00

The use of the sales book, as illustrated, is limited to the recording of sales of merchandise *on credit*—the terms of sale being other than 100 per cent cash. Each entry represents, therefore, a debit to a customer and a credit to Sales for the *total* of the sales invoice. In posting, the customer accounts are debited daily but Sales is credited only at the end of the month, for the total. In the illustration, the Sales account is credited on January 31 with $476.00 which is the total of the charge sales for the month.

The crediting of the total of this book to Sales is the factor which limits it to the records of sales of merchandise alone. If any fixed asset, such as furniture and fixtures, is sold, the credit must be to the account representing that particular asset and not to Sales which represents only merchandise sales.

Advantages of the Use of the Sales Journal

The use of the special journal for sales has certain decided advantages over the method of recording charge sales in a general journal.

1. It is easier to find the entry of a particular charge sale.
2. The total charge sales for any period are obtained readily.
3. The recording of charge sales is facilitated. It is easier to make entries as illustrated in the sales book than to record debits, credits, and explanations in a general journal.
4. Posting charge-sale entries is facilitated. The postings are reduced practically one-half. Instead of a credit posting to Sales for each entry, one credit posting is made at the end of a month for the total.
5. Specialization in office labor is provided in part, with its attendant localization of responsibility and speedier and more accurate work. The person assigned the duty of recording charge sales becomes very familiar with the work, fast and accurate in doing it, and careful about it.

Purchase Journal Explained

PURCHASE JOURNAL

Date	Accounts Payable	Terms	F	Invoice Number	Creditor Credit

The form of the purchase journal is the same as that for a sales journal. The wide column is headed Accounts Payable instead of Accounts Receivable. The next to the last column is headed Invoice Number in contrast to a similar sales journal column headed Sales Invoice Number. The last column is headed Creditor Credit in contrast to the sales journal's Customer Debit column.

Merchandise or raw material purchases on credit are entered in the same way entries are recorded in the sales journal. If invoices or bills received from creditors are given consecutive numbers, as they very often are, then the number of the invoice is entered in the column provided for that purpose. Where invoices are not so numbered and are filed under the name of the vendor, then the invoice number column is unnecessary. An entry is not made in the purchase book until the invoice has been checked as to quantity, price, and extension, and the receipt of

the goods in satisfactory condition has been verified. The entry when made is of the date of the invoice and not the date of the receipt of the goods.

The illustrated purchase journal is limited to the recording of purchases of merchandise or raw materials *on credit*—the terms of purchase being other than 100 per cent cash. Each entry represents, therefore, a debit to Purchases and a credit to a creditor for the *total* of the purchase invoice. In posting, the creditors' accounts are credited daily, but Purchases is debited only at the end of the month, for the total.

Debiting the total of this book to the Purchases account is the factor which limits it to the records of merchandise or raw material purchases. If any other asset, such as machinery, is purchased, the debit must go to the account representing that asset and not to Purchases. All purchases *on credit* other than merchandise or raw materials are entered in the general journal.

Advantages comparable to those enumerated for the sales journal apply to the use of the purchase journal.

Cashbook Illustrated and Explained

The cashbook, which is the most common of all the special books of original entry, consists of two special journals, *the cash receipts journal* and *the cash disbursements journal.* Sometimes these two books are kept in separate bindings, more often they are in the same binding, usually on opposite pages, the cash receipts journal always on the left page, the cash disbursements journal on the right page. This is the form in which they are illustrated on pages 90 and 91.

It will be noticed that the two cash pages are ruled parallel although there are not so many items on the left or debit side as on the credit side. When one of the two pages of a cashbook is filled and it is necessary to carry the totals forward to another page, the totals of both pages are forwarded. To this extent entries for current receipts and disbursements are kept opposite each other.

The cash balance on February 1 is placed in the second money column so that it will not be considered with new receipts and be posted again to the Cash account in the ledger. Only the receipts during February will be included in the cash debit at

the end of that month. Each side of the illustrated cashbook is a journal separate unto itself. The left side—cash receipts journal—shows records of transactions which brought cash into the business. The asset Cash is increased and is debited at the end of the month for the total, while the various accounts listed in the account column are credited daily. The total debited to Cash offsets exactly the credits to the various accounts listed. The right side—the cash disbursements journal—shows records of transactions which caused payments of cash by the

CASH RECEIPTS JOURNAL

Date		Accounts Credited	Explanation	F	Amount			
19__								
Jan.	2	J. B. Harr, Capital	Investment	26	5,000	00		
	12	A. R. Douglas	Invoice of 2d less discount	2	142	10		
	19	Sales*	Cash sales	28	250	00		
	31	W. B. Harris	On account	3	12	00		
	31	Sales	Cash sales	28	125	00		
	31	Cash debit		1			5,529	10
							5,529	10
Feb.	1	Balance					2,624	10

* This credit is the total cash sales of the day. It is obtained from the cash register or from the cash sales slips.

business. The total of this journal represents a decrease in the asset Cash, which is credited for the total at the end of a month. The various accounts listed in the account column are the offsetting debits and are posted daily.

All receipts and disbursements of cash should be entered in the cashbook. Each figure placed in the amount column should agree with the face of the check or the actual cash received or given.

Transactions which involve discounts may be entered in one of several ways. In the illustration a check was received from A. R. Douglas on January 12, for $142.10 in payment of a sales invoice of January 2 for $145.00 but on which a 2 per cent discount had been offered for payment within 10 days. The illus-

tration shows Cash debited and A. R. Douglas credited for the actual amount of cash received. It is also necessary, however, to give credit to Mr. Douglas for $2.90, the amount of the discount deduction to which he is entitled for prompt payment. This same amount of discount must be shown as an expense in the Sales Discounts account. The method recommended for the present is to make the entry for the discount portion of a transaction in the journal. The general journal entry necessary in the case just cited is

CASH DISBURSEMENTS JOURNAL

Date		Accounts Debited	Explanation	F	Amount			
19__								
Jan.	2	Rent Expense	Month in advance	41	200	00		
	2	Office Expenses	Stationery	39	50	00		
	2	Purchases	Cash purchases	30	800	00		
	3	Furniture and Fixtures	Desks and chairs	16	150	00		
	17	H. Ware	Invoice of 3d	17	700	00		
	31	Notes Payable	To B. Jones	25	1,000	00		
	31	Interest Expense	On above note	46	5	00		
	31	Cash credit		1			2,905	00
	31	Balance					2,624	10
							5,529	10

GENERAL JOURNAL

Date		Accounts and Explanation	F	Debit Amounts		Credit Amounts	
19__							
Jan.	12	Sales Discounts	47	2	90		
		A. R. Douglas	2			2	90
		To record discount allowed on payment of sales invoice of 2d.					

Another method of handling transactions involving discount, but not recommended, is to enter the full amount involved on one side of the cashbook and the amount of the discount on the other side of the cashbook. For the case cited, the entries under this plan follow:

CASH RECEIPTS JOURNAL

Date		Account	Explanation	F	Amount			
19—								
Jan.	12	A. R. Douglas	Invoice of 2d		145	00		

CASH DISBURSEMENTS JOURNAL

Date		Account	Explanation	F	Amount			
19—								
Jan.	12	Sales Discounts	A. R. Douglas		2	90		

This method gives the same results as the first plan, but it records incorrect statements of fact on both sides of the cashbook. In the illustrated case $145.00 cash was not received nor was $2.90 disbursed. It is a convenient method, however, since the complete record can be made in the cashbook without resort to the journal and this undoubtedly accounts for its frequent use.

Advantages comparable to those cited for the sales journal apply to the use of cash journals. In addition, the use of a cashbook permits the quick determination of the cash balance, thus facilitating frequent and regular testing of the balance with the actual count of cash as revealed by cash on hand and in bank.

General Journal Explained

The general journal is the same as developed in Chapter VII, but it is no longer used for transactions for which special journals are provided.

All items invested by the proprietor, except cash, are recorded in the general journal. Suppose J. B. Harr whose cash investment was recorded in the cash receipts journal, had invested, in addition to the cash, notes owed to him in the amount of $1,800.00, furniture and fixtures of a value of $100.00, and claims on L. S. Harris for $600.00 and R. Walker for $800.00. At the same time the business assumed obligations he owed on notes payable for $500.00 and to Lloyd Smith for $250.00. The general journal entry to record these facts is

GENERAL JOURNAL

Date		Accounts and Explanation	F	Debit Amounts		Credit Amounts	
19—							
Jan.	2	Notes Receivable		1,800	00		
		Furniture and Fixtures		100	00		
		L. S. Harris		600	00		
		R. Walker		800	00		
		Notes Payable				500	00
		Lloyd Smith				250	00
		J. B. Harr, Capital				2,550	00
		To record the assets other than cash contributed, and the liabilities transferred, to the business by J. B. Harr.					

Cross-checking

When a transaction may be placed in either of two journals it may be recorded in both. The reason for the double recording is the desire to have each journal show all entries which pertain to it. To prevent double posting it is necessary to cross-check the appropriate items in both journals. To *cross-check* means to place a check mark (√) in the folio column of both journals.

To show the owner's complete investment including the cash in the general journal, and the cash element in the cash receipts journal, the investment may be recorded as follows:

GENERAL JOURNAL

Date		Accounts and Explanation	F	Debit Amounts		Credit Amounts	
19—							
Jan.	2	Cash	√	5,000	00		
		Notes Receivable		1,800	00		
		Furniture and Fixtures		100	00		
		L. S. Harris		600	00		
		R. Walker		800	00		
		Notes Payable				500	00
		Lloyd Smith				250	00
		J. B. Harr, Capital				7,550	00
		To record the complete investment by J. B. Harr.					

The $5,000.00 cash item must be recorded also in the cash receipts journal, thus:

CASH RECEIPTS JOURNAL

Date		Account	Explanation	F	Amount			
19__								
Jan.	2	J. B. Harr, Capital	Investment	✓	5,000	00		

The check mark in the folio column of the general journal indicates that the debit to Cash is not to be posted from that book. As a result the debit postings for this general journal entry are $5,000.00 short of the amount of the credit postings. The check mark in the folio column of the cash receipts journal indicates that the credit to J. B. Harr, Capital is not to be posted from that book. Since the $5,000.00 cash item will be included in the cash receipts total to be debited to the Cash account, the credit postings from the cash receipts journal will be $5,000.00 short of the debit amount. The shortage of credit postings from the cash receipts journal offsets exactly the debit shortage from the general journal.

The total amount credited to J. B. Harr, Capital is the same under both methods of recording. By the first method illustrated, the Capital account will have credits of $5,000.00 from the cash receipts journal and $2,550.00 from the general journal. Under the second method it will have just one credit for $7,550.00 from the general journal.

This method of cross-checking makes possible the recording of items such as cash sales in both the cash receipts journal and the sales journal, and cash purchases in both the cash disbursements and purchase journals so that the total sales and total purchases for each month will be shown in their respective journals.

When cash sales are entered in the cash receipts journal and checked thus:

CASH RECEIPTS JOURNAL

Date		Account	Explanation	F	Amount			
19__								
Jan.	19	Sales	Cash sales	✓	250	00		

and in the sales journal, as follows:

SALES JOURNAL

Date		Account	Terms	F	Sales Invoice Number	Customer Debit	
19__							
Jan.	19	Cash	Cash sales	✓		250	00

the debit to Cash is from the cash receipts journal with no offsetting credit from that book, and the credit to Sales is from the sales journal with no offsetting debit from that book.

Other Journals Sometimes Used

1. *Sales Returns Journal.* A special journal for returned sales is provided when such transactions are of sufficient frequency to warrant it. Its general form is the same as that illustrated for the sales journal but the column headed Customer Debit is changed to Customer Credit. The postings are credits to the customers affected and the debit is to Sales Returns for the total. Sometimes this book is a journal for both returned sales and allowances, in which case it is called the sales returns and allowances journal, and the total of the book is debited to the account, Sales Returns and Allowances. A separate journal for sales returns and another for sales allowances are provided in a business where the number of transactions of both types warrants their use.

2. *Purchase Returns Journal.* This separate journal is based on the same principles as the others. Here again there may be one journal for purchase returns and another for purchase allowances, or the two may be combined in a purchase returns and allowances journal. In either case the debits are to the creditor accounts involved. The credits are to the accounts Purchase Returns and Purchase Allowances, if two books are used, and Purchase Returns and Allowances, if one book is provided.

3. *Notes Receivable Journal.* This special journal is used to record the receipt of notes from customers. The debit is to Notes Receivable, the credits to the customers involved.

4. *Notes Payable Journal.* This book is used to record the

issuance of notes to creditors. The debits are to creditors' accounts and the credit is to Notes Payable.

Compound Transactions

Not every transaction may be recorded completely in one journal. Sometimes there are several elements involved which require records in two or more journals. An instance is the investment by the owner illustrated previously in this chapter.

If more than one business paper is involved in a transaction it is desirable to record each paper separately. For example, suppose the sale on April 5, 19__ of $1,500.00 worth of merchandise to Walter Miller, who pays $500.00 cash at the time of the sale, gives the business a 30-day promissory note for $600.00, and asks that the $400.00 balance be carried on open account for 60 days. Each of the business papers involved in this transaction is recorded separately. The $1,500.00 sales invoice is charged to Miller in the sales journal. The check for $500.00 is credited to Miller in the cash receipts journal, and the $600.00 note is credited to Miller in the general journal. The ledger account with Walter Miller appears as follows:

Walter Miller

19__						19__					
Apr.	5	Sales Journal	S	1,500	00	Apr.	5	Cash Receipts	CR	500	00
							5	Journal	J	600	00

The $400.00 debit balance is the amount owing on open account.

Ledger References to Various Books

When more than one journal is used, it is not sufficient to enter in the folio column of the ledger a page number to refer to the original entry. A symbolic letter or letters must precede each page number to indicate the original entry journal to which the number refers. Suggested symbols are:

S for sales journal.
P for purchase journal.
J for general journal.
CR for cash receipts journal.
CD for cash disbursements journal.
SR for sales returns and allowances journal.
PR for purchase returns and allowances journal.

Correcting Entries

A correcting entry is one made to correct an error existing in the accounts as the results of an an incorrect journal entry.

Errors are inevitable now and then and some of them can be corrected satisfactorily without making entries. If the incorrect entry has been posted, the method by which mistakes are corrected by means of entries is recommended. It is a clear, neat, and complete way to correct misstatements in the accounts. An error should never be erased or blotted out, so that it is impossible to tell what record was there. Such a method may cast doubt on the validity of the record and on the integrity of the person who did it.

In cases where an incorrect amount or a wrong account caption has been journalized and the mistake is noticed before any posting of the incorrect item has been made, the plan of ruling out the wrong amount or item and inserting the correct one above it is as satisfactory as any method.

If the mistake on the books results from an omitted entry then such entry should be recorded, but it is not what is known as a correcting entry. It is an entry which should have been made. It is entered under the date of the discovery of its omission, with a reference in the explanation section of the entry to the date it should have been made. If a $100.00 check for rent was mailed on the first of a month and on the sixth it was discovered that it was not recorded in the cash disbursements journal, it is entered on the sixth with comment that it was omitted on the first.

Suppose on the second of the month B. B. Smith, a customer, paid $150.00 to be applied to his credit. In the cash receipts journal B. W. Smith, another customer, was credited. On the twelfth the error was discovered. If not posted, it may be corrected by the ruling out and inserting plan, otherwise by a correcting entry. If the latter method is followed, an entry is made on the twelfth in the general journal, as follows:

B. W. Smith	150.00	
B. B. Smith		150.00
To correct credit on the 2d in cash receipts journal to B. W. Smith, which should have been to B. B. Smith.		

A reference to the entry on the twelfth should be added to the incorrect entry on the second.

In the above illustration the cash item was recorded correctly, consequently it does not appear in the correcting entry. Correcting entries are to correct the accounts which are stated incorrectly.

Correcting entries in cases where cash is misstated should be recorded in the cashbook. Suppose $50.00 were spent for office expense items on the third of the month. A clerk entered the item as Office Expenses $50.00 in the cash receipts journal. To correct this error by the entry method, an entry debiting Office Expenses $100.00 should be made in the cash disbursements journal on the day the error is discovered. $50.00 of the $100.00 entry offsets the incorrect entry, the other $50.00 records the correct entry on the books.

Suppose a $100.00 sale on account to R. Hall was entered incorrectly in the purchase journal and posted before the error was discovered. This incorrect entry resulted in a debit to Purchases and a credit to R. Hall for $100.00 each. To correct this situation by one entry it is necessary to make the following general journal record:

R. Hall	200.00	
Purchases		100.00
Sales		100.00
To correct errors resulting from the recording of a sale to R. Hall on credit, in the purchase journal.		

These few illustrations of errors and how to correct them are merely suggestive. Errors are possible in any part of the system of accounts and considerable thought and care are often necessary to correct them.

QUESTIONS

1. Why would a small enterprise find it advisable to use a number of special journals rather than one journal?
2. From a bookkeeping standpoint, why is it possible to have a special journal for sales? For purchases? For cash receipts? For cash disbursements?
3. Would it be advisable to have one special journal for both Sales Returns and Allowances and Purchase Returns and Allowances? Explain.

4. Is a cashbook, in which both cash receipts and disbursements are recorded, one or two special journals? Explain.
5. *a.* Name nine journals a wholesale enterprise might use.
   b. Suppose the enterprise referred to in *a* above used only five journals. Name them.
6. What accounts are posted as debits and credits from
   a. The sales journal?
   b. The cash receipts journal?
   c. The purchase journal?
   d. The cash disbursements journal?
   e. The purchase returns journal?
   f. The notes payable journal?
   g. The sales returns journal?
   h. The notes receivable journal?
7. Explain the several methods of recording and posting *cash sales* when special journals for sales and cash receipts are used.
8. When you examine a ledger account, how do you know from what special journal an item was posted?
9. Assuming the use of the five journals emphasized in this chapter,
   a. Name the journal or journals in which each of the following transactions should be recorded:
      (1) A merchandise sale on account.
      (2) The receipt of a note from a customer.
      (3) A merchandise purchase for cash.
      (4) The receipt of a check from a customer.
      (5) The return of defective merchandise to a creditor.
      (6) The granting of an allowance to a customer for defective merchandise sold to him.
      (7) A cash payment to a creditor.
      (8) The issuance of a note to a creditor.
      (9) A sale of merchandise for cash.
      (10) A sale of merchandise to a customer who gave his note in payment.
      (11) The cash purchase of various small supply items for the office.
      (12) The receipt of a check in payment for the note of a customer.
      (13) The payment of interest on a note payable.
      (14) The payment of a note originally given to a creditor.
      (15) The sale of merchandise to a customer who made a down payment in cash, gave his note for part of the balance, and requested the remainder be carried on open account.
      (16) The sale of an old office desk for cash.
      (17) The sale of an old office typewriter, on account.
      (18) The purchase of oil for heating purposes, on account.

b. Indicate the accounts you would debit and credit in each of the transactions enumerated in *a* above.

10. What do you mean by *cross-checking* in journals? Explain by an example.

11. Assume a business used only one journal and in a month it had 163 charge sales. How many postings would it have saved, if it had used a sales journal?

12. Would it be correct or incorrect to enter in the purchase journal the purchase of a fixed asset on account? Explain.

13. How is the equality of debits and credits in the ledger maintained, if the total of the right side of a cashbook is less than the total of the left side? Explain.

14. Name the journal or journals in which the necessary entry or entries would be made to correct each of the following errors:

a. A sale of merchandise to a customer, 5 days ago, was overlooked and not recorded. Would it make any difference in your answer if the error was discovered in the month in which it was made or discovered in a subsequent month?

b. The purchase of merchandise, 10 days ago, from Harrison Morris was incorrectly credited in the purchase journal, to Harrison Morrison.

c. A rent payment, early in the month, was incorrectly charged to Real Estate in the cash disbursements journal.

d. The receipt of a note from a customer, last month, was entered in the sales journal as a charge to the customer and a credit to Sales.

e. A $5.00 payment made for the purchase of office supplies was entered, some days ago, as a credit to Office Expenses on the left side of the cashbook.

f. A $125.00 purchase of merchandise, from Robert Nyce on account, was entered, some days ago, in the sales journal.

g. A $150.00 purchase of merchandise from Harold Stone was entered as a $15.00 item, a week ago, in the purchase journal.

15. Give the debits and credits, and the amounts if necessary, for each of the items enumerated in question 14.

16. Do special journals require the same number of accounts in the ledger, more accounts, or fewer accounts than a single journal requires?

17. If special journals are used, is it impractical to take a daily trial balance?

CHAPTER IX

THE TRIAL BALANCE

It is desirable periodically, usually once a month in the average business, to test the mathematical accuracy of the books. This is accomplished by means of a trial balance which tests the ledger equilibrium.

It has been shown in Chapter VI that the fundamental principle of double-entry bookkeeping requires that the sum of the debits and the sum of the credits in each entry must be equal. If all debits and credits are transferred correctly from the original entry books to the ledger, it follows that the ledger must balance, *i.e.*, that the sum of the debits will equal the sum of the credits. A corollary to this is that the sum of the debit totals of all the accounts will agree with the sum of the credit totals of all the accounts. Similarly it follows that the sum of the accounts with debit balances will equal the sum of the accounts with credit balances.

Definition

A trial balance is a list of the accounts on a ledger at a given date with the debit and credit totals of each account, or it is a list of the accounts on a ledger at a given date with the debit or credit balance of each account.

Purpose

There are two reasons for the preparation of a trial balance:

1. It proves or disproves the equality of the debits and credits in the ledger.
2. It is a convenient summary or abstract of the ledger accounts and is, therefore, the basis for the preparation of the balance sheet and the statement of profit and loss.

A trial balance may be prepared at any time if all entries have been posted. It is common practice to prepare one monthly,

thereby limiting the period of possible errors and facilitating their discovery.

Summarizing the Ledger

After journalizing and posting it is necessary to do some preliminary work on a ledger before taking a trial balance.

Accounts, the totals of which are not obvious, must be added and the totals placed in small lead-pencil figures under the last items. As these figures remain permanently in the accounts to facilitate subsequent additions, they should be so small that they will not fill posting spaces and will not interfere with the placement of other figures in the spaces where they are located.

The account with R. F. Davis, a customer, is reproduced below to illustrate the method of totaling, ruling, and balancing an account.

R. F. Davis

19__						19__					
Nov.	1	Balance		450	00	Nov.	10		J 11	300	00
	6		S 8	80	00		15		CR 18	100	00
	9		S 12	30	00		20		CR 24	100	00
	16		S 19	60	00					500	00*
	28	240.00*	S 32	120	00	Dec.	8		CR 34	100	00
				740	00*		16		CR 40	100	00
Dec.	14		S 38	150	00					700	00*
	21	300.00*	S 43	110	00		31	Balance		300	00
				1,000	00*						
				1,000	00					1,000	00
19__											
Jan.	1	Balance		300	00						

* Small pencil figures. In the amount columns these figures should be small enough not to interfere with the next item being entered on the following line.

The pencil figures 240.00 and 300.00 shown in the explanation column of the debit side on November 28 and December 21 respectively indicate the balances existing in the account on those dates. It is customary to indicate an account balance by pencil figures placed on the larger side of the account.

The balance 300.00, entered on the credit side of the account on December 31, indicates the account is to be restated as a single balance. The difference is indicated by adding an amount to the smaller side to make it equal the larger side. This balance is brought over to the larger side and entered immediately below

the double rulings. On January 1, as a result of all previous transactions, R. F. Davis has a debit balance of $300.00, in other words he owes this business $300.00. Balancing an account and ruling it in this way may be done at any time. Special effort is often made to balance accounts at the end of fiscal periods.

Offsetting debit and credit items in an account may be indicated at the time of posting by single rulings placed under them provided the account is in balance to the point of the rulings, thus:

O. L. White

19__	✓					19__					
Dec.	1	Balance		500	00	Dec.	10		CR 11	500	00
	18		S 21	200	00		26		CR 27	125	00
	24		S 45	400	00		27		CR 29	75	00
							28		CR 31	400	00

Another method of cancelling offsetting debit and credit items in an account at the time of posting is to mark both the debit and credit items by the same letter placed in the explanation columns, as follows:

Notes Receivable

19__						19—					
Dec.	1	(30 day note) d	J 6	150	00	Dec.	23	a	CR 23	125	00
	3	(20 day note) a	J 9	125	00		24	b	CR 25	175	00
	4	(20 day note) b	J 12	175	00		28	c	CR 31	150	00
	7	(30 day note)	J 13	200	00		31	d	CR 35	150	00
	8	(20 day note) c	J 14	150	00						

The unlettered items are the ones which have not been satisfied and are still open, in this case the $200.00 debit on December 7.

Form

A trial balance may be prepared on journal paper. The title and date should appear at the top, with the accounts listed in the same order as they appear in the ledger, with their respective totals or balances in the proper money columns. The debit totals or debit balances appear in the left money column and the credit totals or credit balances in the right. It is helpful for reference purposes, if the ledger page number of each account is indicated in the narrow column to the left of the account titles.

Illustrations

A trial balance of totals for the business of G. W. Adams on December 31, 19__, follows:

G. W. ADAMS
TRIAL BALANCE, DECEMBER 31, 19__

		Dr.		Cr.	
1	Cash	$37,400	00	$28,600	00
2	R. F. Davis	1,000	00	700	00
3	O. L. White	1,100	00	1,100	00
4	A. R. Blake	2,300	00	2,300	00
5	Notes Receivable	800	00	600	00
6	Furniture and Fixtures	1,200	00		
7	M. O. Nunn			300	00
8	G. W. Adams, Capital			9,100	00
9	Sales			30,000	00
10	Purchases	25,000	00		
11	Store Expenses	100	00		
12	Rent	1,200	00		
13	Office Expenses	200	00		
14	Salaries	2,400	00		
		$72,700	00	$72,700	00

The trial balance of totals just presented is comparable to an equation, the debit items of which exactly equal the credit items. The accounts with totals which balance, such as those

G. W. ADAMS
TRIAL BALANCE, DECEMBER 31, 19__

		Dr.		Cr.	
1	Cash	$ 8,800	00		
2	R. F. Davis	300	00		
5	Notes Receivable	200	00		
6	Furniture and Fixtures	1,200	00		
7	M. O. Nunn			$ 300	00
8	G. W. Adams, Capital			9,100	00
9	Sales			30,000	00
10	Purchases	25,000	00		
11	Store Expenses	100	00		
12	Rent	1,200	00		
13	Office Expenses	200	00		
14	Salaries	2,400	00		
		$39,400	00	$39,400	00

of O. L. White and A. R. Blake in the above illustration, may or may not be included in a trial balance of totals. Unless they are needed to give evidence of the volume of business with them, it is useless to include them.

If a new list with account differences is presented, it too will balance, since the smaller side of each account will be deducted from both sides, and accounts with the same debit and credit totals will be omitted altogether, thus equally affecting both sides. A trial balance of balances from the same ledger of G. W. Adams, December 31, 19__ is shown at the bottom of page 104.

The equality of the debit and credit items in either trial balance indicates the equality of the debits and credits in the ledger. If a trial balance of differences is desired, it is prepared directly from the ledger and a trial balance of totals is not prepared as a preliminary to it.

Since a trial balance of balances does not include closed accounts and shows the exact balances of the open accounts, it is a briefer statement and is more significant, which probably accounts for its popularity. It is the form which will be used throughout this text, and which should be used by the student in all assigned problems.

The trial balance taken at the end of the first month of the existence of a business is the only one which summarizes the records of a single month. All others summarize the accumulated records in the accounts. If a business is eleven months old and a trial balance is taken monthly, a trial balance for the records of the eleventh month alone would be meaningless. For example, if the Cash account at the end of the tenth month had a debit balance of $10,800.00 and during the eleventh month had debits of $3,000.00 and credits of $5,000.00, a trial balance for the eleventh month alone would show Cash with a credit balance of $2,000.00 which is an incorrect statement of fact. The Cash account has an actual balance of $8,800.00 at the end of the eleventh month.

Trial Balance Does Not Indicate All Errors

A balanced trial balance proves a ledger to be in balance but it does not prove that the journalizing and posting have been absolutely correct. It proves that the equality of debit and credit has been maintained and nothing more than that.

Some errors it does not reveal are

1. The omission of an entire entry.
   If a transaction such as a sale on account is omitted, the records are short a debit to an account receivable and a credit to Sales for the same amount.
2. Recording the wrong amount although the entry is correct otherwise.
   If a sales slip is overadded the customer is charged an excess amount and the Sales account is overcredited a like amount.
3. A debit or a credit to the wrong account.
   a. If a debit is made to John L. Williams instead of J. K. Williams the records balance, although one customer is overdebited and another underdebited. An error of this character will be discovered and reported probably by the overcharged customer. This error would not affect the total of claims on customers; consequently it would not affect the calculation of correct net worth and net profit or loss.
   b. If not located certain debits or credits to the wrong account result in the ultimate determination of an incorrect net profit or loss and net worth of the business. For example, if repairs to the delivery truck are charged to Delivery Equipment instead of Delivery Expenses, an asset will be overvalued and an expense will be understated, by the same amount. Such errors are referred to as errors of principle as they affect both nominal and real accounts.
4. Compensating or offsetting errors.
   If the debit side of Cash is overadded $100.00 and the credit side of Notes Payable is overadded a similar amount, the trial balance will balance. One error offsets the other. If the debit side of Cash is overadded $100.00 and the debit side of Notes Receivable is underadded $100.00, the trial balance will balance although two accounts are wrong. Such errors, especially those which involve cash should be discovered quickly as a result of accounting routine. A well-ordered system requires the book balance of cash to be compared frequently with the actual count of

cash; very often it is done daily. At such times errors in cash, such as those illustrated, are discovered.

Errors of this nature, which do not affect the equilibrium of the ledger, indicate the need for careful and accurate bookkeeping, if the statements prepared at the end of fiscal periods are to reflect the true condition of the enterprise.

It is one of the functions of auditing, which is a subject outside the scope of this book, to check the accuracy of the accounts with respect to errors of principle, referred to under point 3 above.

If a trial balance balances, it is customary from the bookkeeping standpoint to assume the correctness of the accounts.

Procedure If Trial Balance Does Not Balance

When a trial balance does not balance the error or errors may have occurred in the trial balance, the ledger, or the journals. The fact that a difference is small is no index of the amount of the errors. A difference of $8.30 may be the net difference of errors involving thousands of dollars.

One plan for locating the trouble is to examine the trial balance first and from it go backward to the ledger and then to the journals.

1. Determine the difference between the trial balance totals. It frequently happens that if only one item is omitted or duplicated the figure is familiar or easily traceable.
2. Examine the trial balance to see if any balances are placed on the wrong side.
3. Add the trial balance columns again.
4. Check with the ledger to see if all balances are taken correctly.
5. Readd the ledger and redetermine the account balances.
6. Check postings from the original entry books to the ledger, to see if
   a. The wrong amount has been entered.
   b. A debit or credit has been omitted or duplicated.
   c. A debit has been posted as a credit or vice versa.

As checking is done, a distinguishing check mark such as (✓) should be placed beside each debit and credit in both the original

entry books and the ledger, so that later both books may be scrutinized for missing or duplicated check marks.

Some Special Tests for One Error

If a trial balance is out of balance as a result of just one mistake, considerable labor and time may be saved by applying the special tests for one error. Since it is frequently the case that only one error has been made, it is advisable after ascertaining the trial balance difference, to apply these special tests, before following the procedure just outlined.

1. If the difference is \$ .01, \$ .10, \$1.00, \$10.00, \$100.00, etc., the mistake is likely to be the result of incorrect addition or subtraction but there is no clue as to the location of the error.
2. If the difference is divisible by 2, perhaps a debit balance has been placed in the trial balance as a credit, or vice versa, or a debit item has been entered in the ledger as a credit, or vice versa. For example, if the \$300.00 debit balance of the R. F. Davis account in the G. W. Adams trial balance of balances had been placed in the credit column, the total of the debit side of the trial balance would have been \$39,100.00 and that of the credit side \$39,700.00. The credit total would have been larger than the debit total by \$600.00. This difference is divisible by 2. The quotient \$300.00 indicates the figure which caused the difference.
3. If the difference is divisible by 9, perhaps
   a. A transposition of figures has taken place.
   For example, if the Purchases account had been listed in the G. W. Adams trial balance as \$52,000.00 instead of \$25,000.00, the trial balance difference would have been \$27,000.00. This difference is divisible by 9 with a resulting quotient of 3,000. The digit 3 in this quotient indicates that the difference between the digits which have been transposed is 3, in this case 5 and 2. The ciphers indicate that the transposition has taken place to the left of the third digit. If 47 is written as 74, or vice versa, the difference will be 27. If this difference of 27 is divided by 9 the quotient will be 3, indicating that the difference between the transposed figures was 3, in

this case 4 and 7. The transposition of any two figures the difference between which is 3, as 36 for 63, or 85 for 58, will result in a difference of 27.

The transposition of any two figures gives a difference which is a multiple of 9. If the difference is divided by 9 the quotient indicates the difference between the digits which have been transposed.

b. A one-place slide has taken place.

For instance, if the Rent account with a debit balance of $1,200.00 had been placed in the trial balance as $120.00—in other words the decimal point moved over one place—the debit total of the trial balance would be $1,080.00 smaller than the credit total. This difference is divisible by 9 with a resulting quotient of 120 which indicates the amount where the slide occurred.

4. If the difference is divisible by 99 perhaps a two-place slide has taken place.

For example, if the Salaries account had been placed in the trial balance as a debit balance of $24.00 instead of $2,400.00, the difference of $2,376.00 is divisible by 99 with a resulting quotient of 24 which indicates the amount involved in the slide.

If the error is not discovered through the help of these special tests, resort must be had to the procedure previously outlined, which as a last measure provides for a complete checking of all postings to the ledger.

QUESTIONS

1. *a*. Distinguish between a *trial balance* and a *balance sheet*.
   b. Is there any difference in the form of a *trial balance* and a *balance sheet?*
   c. Is there any difference in the purposes for which a *trial balance* and a *balance sheet* are prepared?
2. Distinguish between a *trial balance* and a *statement of profit and loss*, emphasizing the purposes for which they are prepared, their form, and content.
3. Name
   a. An account title which will appear in the trial balance and the balance sheet.
   b. An account title which will appear in the trial balance and will not appear in the balance sheet.

c. An account title which will appear in the trial balance and in the statement of profit and loss.
d. An account title which will appear in the trial balance and will not appear in the statement of profit and loss.

4. Is it possible for any facts shown by a trial balance at the end of a fiscal period to agree with the facts which appeared in the balance sheet at the close of the preceding fiscal period? Name some and state the conditions which make the agreement possible.
5. What kind of balance, if any, should each of the following accounts have in a trial balance? Why?
   a. Cash.
   b. A creditor's account.
   c. Office Salaries.
   d. Notes Receivable.
   e. Proprietor's Capital.
   f. A customer's account.
   g. Notes Payable.
   h. Sales.
   i. Interest Income.
   j. Purchase Returns and Allowances.
6. Does a trial balance *in balance* prove that a set of books is absolutely correct? Explain.
7. How much will a trial balance be *out of balance*, if at all, as a result of each of the following errors?
   a. A debit of $75.16 to Frank Anderson was posted as a debit to Frank Andrews.
   b. A credit of $35.00 to Roy Wood was posted as a debit to that account.
   c. A debit of $17.89 to J. Torrey was not posted at all.
   d. A credit of $85.00 to L. Brown was posted as a credit of $58.00.
   e. A debit of $17.00 to Office Expenses was posted as a credit to that account.
   f. A credit of $10.00 to Interest Income was credited to Purchase Discounts.
   g. A debit of $100.00 to Rent was posted as a debit of $10.00.
   h. A credit of $17.22 to Office Furniture and Fixtures was posted as a credit of $17.02.
   i. A debit of $5,500.00 to the Building account was posted as a debit of $55.00.
8. What test, if any, would help to indicate the kind of error illustrated in
   a. Question 7*b*?
   b. Question 7*d*?
   c. Question 7*e*?

d. Question 7*g*?
e. Question 7*i*?

9. Why is a check mark, such as (✓), made in both the journals and the ledger when figures are compared in order to find errors?
10. Which, if any, of the following prevent a trial balance from balancing and why?
    a. A bill for repairs to the delivery truck was not recorded nor had it been paid when the trial balance was taken.
    b. The invoice for some office supply items purchased and received ten days ago was not recorded, but an entry was made in the same month at the time the check was mailed.
    c. The Purchases account was debited with a tire bought for the delivery truck.
    d. A customer was debited in the cash disbursements journal with the amount of the check received from him.
11. What would be the effect, if any, of each of the mistakes referred to in question 10, on the net profit for the period, if it were calculated immediately after the trial balance was taken?
12. The debit side of a trial balance totals $78,857.85, the credit side $81,976.35. List three possible errors which may have resulted in the difference between these two totals, assuming in each case that only one mistake was made.
13. What classes of account balances are found in the debit trial balance column? Credit column?
14. We owed the X Company $500.00 on open account. We purchased $300.00 of merchandise on account. The bookkeeper debited the X Company with $3.00. Prior to discovering the mistake, would the debit or credit total of the trial balance be too high or too low and by what amount? If the first sentence were omitted, what would your answer be? (The answer is not the same.)

CHAPTER X

CAPITAL AND REVENUE EXPENDITURES

In Chapter VI, in connection with the application of the debit and credit schedule, it was stated that it is necessary to apply a descriptive accounting caption to each element in a transaction. The account titles chosen for the debit and credit items of an entry are important since they determine largely the subsequent treatment of the items on the books and in the statements. The selection of account titles is particularly important in distinguishing between capital and revenue expenditures.

Expenditure

An expenditure is a payment or the incurring of a debt for an asset or an expense. If an asset is acquired or an expense incurred, an expenditure is made, whether or not the cash is paid immediately.

Capital Expenditure

A capital expenditure is one that results in an increase in the relatively permanent value of an asset. If an asset has a service life of more than a year, its cost should be capitalized—debited to an asset title; if less than a year, its cost should be charged to revenue—debited to an expense title.

Each capital expenditure is debited to an asset account. Some common capital expenditures are for

1. The original purchase or construction of fixed assets.
2. *Additions and Extensions.* An expenditure for an addition or an extension increases the serviceable value of a fixed asset because it provides structures, facilities, or equipment that are not replacements of existing assets. Expenditures to add a wing to a building, to supply safety gates for elevators, or to provide additional shelves and counters in a store are illustrations.

3. *Replacements.* An expenditure for a replacement results in a new asset to take the place of another which is worn out, inadequate, or obsolete. The new asset may or may not be identical with the unit replaced. A delivery truck may be replaced with a new one of like kind or with a new one of greater capacity. In either case the cost of the new asset is capitalized (charged to the fixed asset account involved), but the value on the books of the superseded asset is canceled (written off).
4. *Improvements and Betterments.* An expenditure for an improvement or a betterment increases the efficient life of an asset or its capacity or serviceability. Examples are expenditures to substitute a special body for the one on a motor truck, to modernize existing structures, facilities, or equipment, to improve the ventilating system with air conditioning, to substitute a slate roof for a wooden shingle one, or to substitute steel stairs for the existing wooden ones. In the case of the replacement of an asset, the betterment is the amount by which the cost of the new item exceeds the value on the books of the item superseded. To illustrate, if an automobile body which is considered to have a value on the books of $500.00 but has no exchange value is discarded and replaced by a special body which cost $750.00, the actual betterment is $250.00. To register this $250.00 in the accounts, that amount may be capitalized and the remaining $500.00 charged to an expense account. Another and better method to record the replacement of an asset is to relieve the books of the value of the discarded asset and to capitalize the entire expenditure for the new asset. In the illustration, the $500.00 value of the body discarded would be charged to an expense caption and the entire expenditure of $750.00 would be capitalized (charged to the Motor Truck or Delivery Equipment account).
5. *Renewals.* An expenditure for a renewal renews the life of an intangible asset. In a sense, renewals are replacements. The terms differ in that *replacements* affect tangible assets and *renewals* affect intangible assets. Expenditures that renew or extend the life of original agreements should be capitalized. Examples of renewals are the costs of renew-

ing leaseholds, franchises, copyrights, and royalty, license, and formula contracts.

6. *Deferred Charges.* An expenditure for a deferred asset should be capitalized and written off during subsequent fiscal periods. Examples of capital expenditures in this group are organization expenses for corporations, the discount and expenses of floating a bond issue, improvements to a lessor's property by a lessee under a lease with more than a year to run, experimental and research costs, packing and transportation of machinery to a new location, and rearrangement of assembly lines to facilitate the flow of production.
7. *Stocks and Bonds.* The commission paid for the purchase of securities and the cost of stamps or tax required by the government in connection therewith are expenditures that increase the cost of the securities and that should be capitalized.

Revenue Expenditure

Revenue is a synonym for income. A revenue expenditure is an expense, a cost incurred to obtain gross income. Such expenditures do not increase the book value of any asset; they are sources of debits to expense accounts.

Revenue expenditures in connection with fixed assets arise as the result of repairing, maintaining, and operating them.

Each revenue expenditure is debited to an expense account. Examples of revenue expenditures are

1. *Repairs.* An expenditure for ordinary repairs does not increase the book value of any asset but is made to maintain its normal operating efficiency. Such repairs do not extend the normal service life of any asset. Replacing spark plugs in an automobile, straightening a bent axle, replacing a broken glass window, and replacing a broken cog in a machine are illustrations of ordinary repairs.

   Extraordinary repairs, which appreciably prolong the life of an asset, are sometimes made. They constitute replacements of major parts of an asset. An illustration is the substitution of a new motor in an airplane or a delivery truck. Extraordinary repairs are usually capitalized.

2. *Maintenance.* An expenditure for maintenance is one made to keep the plant and equipment operating efficiently. Examples of such expenditures are cleaning, oiling, and inspecting fixed assets.
3. *Operating Expenses.* An expenditure to carry on activities incident to current operations is a revenue expenditure. Examples are expenditures for wages, light and heat, interest, property insurance, group insurance, rent, supplies, and property taxes, where the benefits do not extend to future fiscal periods.

Necessity of Proper Distinction

Capital expenditures and revenue expenditures are more easily distinguished in theory than in practice. *Value* and *time* are the two important elements to be considered in determining whether an expenditure is properly chargeable to capital or to revenue. If relatively permanent value is added to any asset and the benefit extends substantially and measurably beyond the year when it is added, it should be treated as a capital expenditure, otherwise as a revenue expenditure.

An incorrect charge of a capital or revenue expenditure results at the end of a period in an incorrect balance sheet and profit and loss statement. If a revenue expenditure is charged to an asset, assets and net worth will be overstated, expenses understated, and net profit overstated or net loss understated. To charge to revenue an expenditure which should be capitalized has the opposite effect, assets and net worth will be understated, expenses overstated and net profit understated or net loss overstated.

It will be seen that the proper distinction between capital and revenue expenditures is a matter of indicating clearly assets apart from expenses, and vice versa. The particular account titles chosen for this purpose are relatively unimportant as long as they indicate clearly the major distinction between assets and expenses. If $300.00 cash is spent for desks for an office, it is not vitally important whether the expenditure is charged to Office Furniture and Fixtures, Furniture, Furniture and Fixtures, Office Equipment or some similar asset title, but it is important that it should not be charged to Office Expenses or any other expense account.

Guiding Principles

The following principles are helpful in determining whether a particular expenditure should be capitalized or charged to revenue:

1. Expenditures incident to the acquisition of a fixed asset, ready to use, should be capitalized. These would include such items as the contract price for an asset, transportation, cost of installation, repairs at the time of purchase to a property acquired in a run-down condition, and in the case of property under construction, taxes, insurance, and interest.
2. Expenditures which add relatively permanent value to a fixed asset should be capitalized. This may result from additions or betterments.
3. Expenditures which merely maintain asset values should be charged to revenue.
4. Expenditures which benefit only one fiscal period should be charged to revenue, otherwise to capital.

Illustration of Application of Principles

1. A manufacturer in New York City purchased an automobile truck which was nationally advertised at $2,000.00 f.o.b. Detroit. When he paid for his truck he paid $2,000.00, the Detroit price, plus $40.00 for freight to New York City, plus $200.00 extra for a special body. At the same time he paid his insurance agent $80.00 for a one-year insurance policy covering fire, theft, and liability on the truck.
   The cost of the special body and the freight should be capitalized along with the base price of $2,000.00. In other words $2,240.00 should be charged to the Automobile Truck or Delivery Equipment account representing the expenditure necessary to acquire this particular truck ready to use. The $80.00 paid for insurance protection is not a part of the truck cost. It is an expense incident to operations and should be charged to Prepaid Insurance, Insurance, Automobile Truck Expenses, or Delivery Expenses, whichever title is used by the business.
2. A manufacturer purchased, as the site for a new factory, a

plot of ground on which stood ten old dwellings. The ground cost him $50,000.00, the old dwellings $20,000.00. The houses were razed at a cost of $3,000.00 and had no scrap value. The excavation for the cellar and the foundation of the new building cost $10,000.00 and the building itself $90,000.00. The manufacturer paid $200.00 for special insurance to protect him during the period of construction, $4,000.00 as interest on money borrowed for building purposes up to the date the factory was ready for use, $100.00 for an insurance policy guaranteeing title to the property, and $1,500.00 to the real-estate agent who negotiated the purchase for him.

Every expenditure here mentioned should be capitalized since each is a part of the cost of acquiring the new factory ready for use.

3. An investor purchased an old and dilapidated dwelling and the lot on which it stood. He had immediate expenditures for painting, plumbing, roofing, paperhanging, and carpentry work to put it in good condition that it might be leased to a tenant.

   Such repair work should be capitalized as costs incident to placing the property in good condition ready to use. These repair expenditures are part of the cost of the dwelling to the new owner. If the property had been in good condition when purchased, a higher price would have been asked for it.

4. An office had ten typewriters which cost $150.00 each, were carried in the Office Furniture and Fixtures account, and were expected to last five years. At the end of three years one of these machines was discarded and was replaced by a new one which cost $125.00.

   Should any part or all of the $125.00 expenditure have been capitalized? The entire $125.00 expenditure should be capitalized, but the value on the books of the discarded typewriter should be canceled.

5. An oil company added a new section of an oil tank thereby increasing its capacity and usefulness. This expenditure may be considered either an addition or a betterment and should be capitalized.

6. The new factory referred to in 2 was painted at a cost of $800.00 six years after it was built. This expenditure was

made in an endeavor to maintain the value of the property. It was an operating expense and a proper charge to revenue.

7. A corporation had expenditures incident to organization in the amount of $5,000.00. The charter obtained from the state permitted it to operate for a period of 50 years. Should the $5,000.00 Organization Expense, the title by which these expenditures are referred to in the accounts, be considered an asset or an expense? The expenditures should be capitalized at the time of occurrence and treated as an asset because they benefit more than one period. Theoretically they benefit each of the 50 years. In view of the questionable value of this item to the company in later years, it is customary in practice to eliminate it from the assets in the course of a few years.

When the facts about an expenditure are known and there is still real doubt whether it should be capitalized or charged to revenue, conservative practice favors charging it to revenue. Articles of small value but with a life longer than a year may be charged to revenue. Spades, hoes, and rakes bought by a farmer are illustrative. Many businessmen make a practice of charging all items to revenue that cost less than a set figure, say $10.00 in a small concern, or $100.00 in a large concern. This plan prevents the inflation of assets and the overstatement of net profits and net worth by the amount of doubtful or relatively small expenditures.

QUESTIONS

1. What is an *expense?* A cash *disbursement?* An *expenditure?*
2. If a promissory note is paid off in cash, does the payment represent an expenditure? An expense? A disbursement?
3. What is meant by the expression, *to capitalize an expenditure?* By the expression, *to charge an expenditure to revenue?*
4. To *capitalize* an expenditure which should have been *charged to revenue* has what effect on net worth? On total assets? On the net profit for the period? On the net income shown by the enterprise on its income-tax return?
5. Tell, with reasons, whether each of the following expenditures should be *capitalized or charged to revenue:*
   a. Purchased a machine in Germany.
   b. Paid import duty, freight, and cartage on the machine.
   c. Paid for the installation of the machine in our factory.

d. Two months later paid a mechanic for repairs to the machine referred to above.
e. Replaced worn-out gutters and spouts on the factory building.
f. Replaced a hand-operated freight elevator which had cost $350.00 with an electric elevator which cost $1,500.00.
g. Had the badly worn and dangerous slate treads on the main stairway replaced with steel treads at a cost of $300.00.
h. Had a fire escape and fire doors installed on the warehouse at a cost of $750.00.
i. Had a 500-gallon container placed underground and an electric gasoline pump erected at the private garage of the company, cost $325.00.
j. Spent $500.00 for painting the factory building; it had not been painted for six years.
k. Sent a check for $60.00 to the state department of motor vehicles for license plates for the trucks.
l. Paid the Motor Repair Co. $125.00 for repairing one of the automobile trucks which had been damaged in an accident. The damage was not covered by insurance.
m. In order to obtain a tenant for the vacant warehouse, the following bills were incurred: cleaning the inside of the property $60.00; painting inside and outside of the building $400.00; partitioning the south end of the second floor for office purposes, laying special floor, etc. $600.00.

6. Is an *expenditure* involved in either or both of the following transactions?
a. Had a private garage erected on the grounds of the company at a cost of $5,000.00. Payment was made by a 30-day note given to the contractor.
b. Paid the $5,000.00 note referred to in *a* above.

7. The Machinery account on the books of an enterprise was charged with the following items:
a. The cost of new parts to replace other parts which were worn out.
b. The cost of labor and materials to set up additional new machinery.
c. The expense of moving old machinery from one part of the factory to another.
d. The contract price of new machines purchased.
e. Freight paid on new machines.
f. The cost of repairs made to recently purchased secondhand machines.
g. The cost of new attachments for old machines, to increase their efficiency.
h. The cost of safety devices installed around moving machinery, on order of the state inspectors.

i. The cost of new belts for some old machines.

Which of the above charges, if any, should have been made to revenue accounts?

If the Machinery account was credited with a cash discount taken for the prompt payment of an invoice for new machinery, would you agree that the credit was correct?

8. The Delivery Equipment account is found to contain the following items:
   a. The cost of spark plugs purchased to replace worn-out ones.
   b. The cost of license plates for the year.
   c. The cost of drivers' license fees.
   d. The premium on a one-year automobile-insurance policy covering fire, theft, and property damage.
   e. The damage fees paid to a person injured by one of our trucks. These fees were over and above the amount paid by the insurance company for the same accident.
   f. The cost of repairing an auto-truck fender which was damaged in a collision.
   g. The cost of a special body placed on a truck chassis in order to handle bulky merchandise.
   h. The cost of painting the firm name on all trucks.
   i. The purchase of gasoline to fill a large tank located under ground in the rear of the plant.
   j. The purchase of a trailer for use in long-distance hauling.

   Are all of the above charges correct? If not, under what account should each incorrect one have been placed?

9. The Land account of a bus company reveals that it has been charged with the following items:
   a. Fee paid an appraisal company for services at the time the land was purchased.
   b. Commission paid a real-estate company for representing the bus company in the purchase of the land.
   c. Amount paid for searching title.
   d. Lawyer's fees and court costs to cover expenses of litigation arising out of a disagreement as to title to the property.
   e. Cost of leveling the tract.
   f. Property taxes during the period the bus terminal was under construction.
   g. All costs of landscaping.
   h. Cost of roadways leading in from the main road.
   i. Assessment levied by the city council to cover proportion of the cost of improvements made in the highway on which the terminal is located.

   Criticize the treatment of each of the above items.

10. A manufacturing enterprise purchased several other properties in the immediate neighborhood of its main plant. These properties were converted into buildings suitable for the needs of the business. Only one ledger account was kept for Buildings and it was charged with the following expenditures:

a. Cost of moving one of the newly acquired buildings to a more desirable location.

b. Amounts paid to carpenters, masons, roofers, and painters for reconditioning the newly acquired buildings.

c. The cost of building an additional floor on one of the buildings.

d. The cost of replacing drain pipes and gutters on the old-plant building.

e. The cost of repainting the fire escape on the old-plant building.

f. The cost of replacing broken glass windows in one of the newly acquired buildings.

g. The cost of a sprinkler system for the old plant installed to reduce insurance premiums.

h. The cost of replacing a wooden floor in one of the newly acquired buildings with a concrete floor.

Discuss the propriety of each of the above charges.

CHAPTER XI

ADJUSTING THE BOOKS

Emphasis in the preceding chapters was placed on

1. Journalizing, which is the procedure of recording business transactions in books of original entry.
2. Posting, which is the process of transferring the debits and credits of original entry records to their respective ledger accounts.
3. Taking a trial balance, which is the preparation of a list of the accounts in a ledger on a given date, with their debit and credit totals, or their debit or credit balances.

Incompleteness of the Records

The books of a business do not show all the essential facts for the preparation of the statement of profit and loss and the balance sheet. This is true, though every transaction may have been recorded correctly, every debit and credit posted properly, and a trial balance prepared accurately.

At the end of any fiscal period a trial balance does not disclose the amount of

1. The closing inventory of merchandise.*
2. The closing inventories of supplies.*
3. The unrecorded accrued items
   a. Accruals payable.
   b. Accruals receivable.
4. Deferred items
   a. Deferred charges to subsequent periods.
   b. Deferred credits to subsequent periods.
5. The depreciation of fixed assets.
6. The estimated bad debts.
7. Other matters for which provision should be made.

* In the absence of a perpetual inventory system under which quantities of goods as well as values are recorded.

Definition and Purpose

Because of the incompleteness of the records, by reason of the facts above cited, it is necessary to record these facts in the accounts at the end of a fiscal period.

Adjusting the books is the process of modifying accounts at the end of a fiscal period, that they may show the correct condition of the business at that particular date. Modification is accomplished by means of journal entries which are referred to as adjusting entries or adjustments.

Inventory of Merchandise

The trial balance shows the value of the inventory of merchandise at the beginning of the period only. Subsequent changes in inventory are recorded in other accounts. For that reason, it is not possible to determine from the ledger the value of the inventory of merchandise on hand at the end of the period. To ascertain the value of the merchandise on hand at a given time, it is necessary to prepare a list which will show the detailed items and their value.

Assume the following facts:

Inventory of Merchandise, January 1, 19__, as per trial balance	$ 2,000.00
Purchases as shown by trial balance.	40,000.00
Inventory of Merchandise, December 31, 19__, as shown by the inventory sheets	2,500.00

To record the new inventory of merchandise as a separate item on the books, the following entry is necessary:

DECEMBER 31, 19__		
*Inventory of Merchandise, 12/31/19__	2,500.00	
Cost of Goods Sold		2,500.00
To place the new inventory on the books in its own account.		

A debit is made to the Inventory of Merchandise, December 31, 19__ account in order to show this asset on the books. Confusion is avoided if each inventory account is dated. This account will remain unchanged on the books until the close of the next fiscal period, at which time it will be the opening inventory of that period.

* The adjusting entries marked with an asterisk (*) affect the Coordinating Illustration and the Adjusted Trial Balance at the end of this chapter.

The credit is made to a new account, Cost of Goods Sold. At the end of a period it is necessary to compare the cost of goods sold with net sales in order to determine the gross profit on sales, as was explained in Chapter IV. This credit is difficult to understand until it is realized that by means of debits to this Cost of Goods Sold account the total cost of all merchandise held for sale during the period is assembled. The credit for the unsold portion (the final inventory) causes the balance of the Cost of Goods Sold account to reveal the cost of the merchandise which was sold.

To complete the adjusting entries necessary to build up the Cost of Goods Sold account for this illustration, the following entry is made:

DECEMBER 31, 19__		
*Cost of Goods Sold	42,000.00	
Inventory of Merchandise, 1/1/19__		2,000.00
Purchases		40,000.00
To consolidate the initial inventory and the Purchases accounts into Cost of Goods Sold account.		

The effect of these adjusting entries on the ledger accounts involved may be shown as follows:

Inventory of Merchandise, January 1, 19__

19__ Jan.	1	Balance		2,000	00	19__ Dec.	31	(b)	J	2,000	00

Purchases

19__ Dec.	31	Total		40,000	00	19__ Dec.	31	(b)	J	40,000	00

Inventory of Merchandise, December 31, 19__

19__ Dec.	31	(a)	J	2,500	00						

Cost of Goods Sold

19__ Dec.	31	(b)	J	42,000	00	19__ Dec.	31	(a)	J	2,500	00

The postings of the first adjusting entry items are indicated by the letter (a), the second by the letter (b).

The balance of the Cost of Goods Sold account resulting from the two illustrated entries is $39,500.00, which is the cost of the merchandise marketed during the period.

It is possible to use only one account for inventory of merchandise and omit the date from its caption.

The assumed business for which these adjusting entries are made does not have accounts on its books with Transportation In, and Purchase Returns and Allowances. If it had, it would be necessary to transfer the balances of both of these accounts to Cost of Goods Sold, by the entries

Cost of Goods Sold	xxx	
Transportation In		xxx
To transfer Transportation In costs to the Cost of Goods Sold account.		

Purchase Returns and Allowances	xxx	
Cost of Goods Sold		xxx
To reduce the Cost of Goods Sold account by the amount of the Purchase Returns and Allowances.		

The first entry above might be combined with the one on page 124, thus consolidating the debits to Cost of Goods Sold.

Transportation In is an additional element of cost, while Purchase Returns and Allowances account reduces cost.

Inventories of Supplies

In the same manner as for inventory of merchandise, an enumeration is made of unused supplies. When supplies are purchased a charge is made to a nominal account such as Stationery and Printing, Coal, Postage, Office Expenses, Store Expenses, or Gasoline. At the end of a period each of these accounts which appears on a set of books is reduced by the value of unconsumed portions. The figure shown in the trial balance is partly real and partly nominal. The unused supplies are assets and are placed in the balance sheet usually under deferred charges. The used portion is one of the operating expenses of the period.

Assume:

Store Expenses in the trial balance	$800.00	(Trial Balance)
Inventory of Store Expenses, 12/31/19__	50.00	(Balance Sheet)
Cost of store supplies consumed...	$750.00	(Profit and Loss)

To record this inventory of store expenses the following entry is necessary:

December 31, 19__		
*Inventory of Store Expenses	50.00	
Store Expenses		50.00
To record the value of unconsumed store supplies and to modify the Store Expenses account to show the true expense for the period.		

Accrued Items

Under the accrual basis of accounting it is necessary to recognize any item of expense or income whether or not paid or received. The ledger accounts do not show the steadily increasing obligations of the business that will not be paid until a subsequent period, nor the steadily increasing claims of the business on other individuals or enterprises which will not be collected until a later period.

Accruals payable is the term applied to the accumulating debts which arise out of services rendered to the business over a period of time but which debts are not due. Accrued Wages Payable, Accrued Interest Payable, and Accrued Taxes Payable are illustrative titles. The amount of each accrual is added to the figure shown in the trial balance, if any, to determine the amount of the true expense arising from this source. The accrued payable item is shown in the balance sheet as a liability.

Assume:

Salaries as shown by the trial balance..................	$5,500.00	(Trial Balance)
Unrecorded salaries owing to employees but not due.........	300.00	(Balance Sheet)
Cost of salaries for the period...	$5,800.00	(Profit and Loss)

To record these accrued salaries the following entry is necessary:

December 31, 19__		
*Salaries	300.00	
Accrued Salaries Payable		300.00
To record unpaid salaries on Dec. 31, 19__		

These facts in ledger form are as follows:

Salaries

19—											
Dec.	31	Total paid		5,500	00						
	31		J	300	00						

Accrued Salaries Payable

						19—					
						Dec.	31		J	300	00

Accruals receivable is the term applied to accumulating claims which arise out of services rendered by the business over a period of time but which claims are not due. Examples are accrued interest receivable and accrued rent receivable. The amount of each accrual receivable is added to the figure shown in the trial balance, if any, to determine the true income arising from this source. The accrual receivable item is shown in the balance sheet as an asset.

Assume:

Interest Earned as shown by the trial balance....	$110.00	(Trial Balance)
Accumulated interest on unmatured notes receivable.........	8.00	(Balance Sheet)
Correct interest earned this period	$118 00	(Profit and Loss)

To incorporate this supplementary fact in the records the following adjusting entry is necessary:

December 31, 19—		
*Accrued Interest Receivable	8.00	
Interest Earned		8 00
To add to the Interest Earned account the interest income which has not been received, and to set up an additional asset.		

Deferred Items

Deferred items represent those portions of the receipts and receivables, and the expenditures of a period which are applicable to a subsequent fiscal period or periods.

Deferred charges are expenditures that are to be charged off as expenses to a subsequent period or periods. They include such

items as prepaid insurance, prepaid rent, and prepaid interest. The term *deferred debits* or *deferred charges* is descriptive since it represents expenditures for which the expense charges are deferred or postponed until the fiscal period to which they are applicable. The amount of such prepayment is subtracted from the trial balance figure to determine the correct amount applicable to the current period. Each prepayment appears in the balance sheet as an asset which will benefit the enterprise in a subsequent period or periods. (See Chapter II.)

Assume:

Prepaid Insurance in the trial balance..........................	$500.00	(Trial Balance)
Unexpired insurance, December 31, 19__..........................	300.00	(Balance Sheet)
Cost of expired insurance for the period..............	$200.00	(Profit and Loss)

The following adjusting entry is necessary:

DECEMBER 31, 19__

*Insurance	200.00	
Prepaid Insurance		200.00
To reduce the Prepaid Insurance account by the portion which expired this fiscal period.		

Some deferred charges arise out of items debited to expense accounts at the time the cash was paid or the liability incurred.

Assume:

Interest Expense in the trial balance..........................	$280.00	(Trial Balance)
Prepaid Interest, December 31, 19__..........................	30.00	(Balance Sheet)
Cost of interest for the period....	$250.00	(Profit and Loss)

The following adjusting entry is necessary:

DECEMBER 31, 19__

Prepaid Interest	30.00	
Interest Expense		30.00
To reduce the Interest Expense account by the amount paid in advance.		

Deferred credits represent receipts or receivables of one period that are earnings of a subsequent period or periods. Deferred

credits is a descriptive term since it represents items received or receivable which will not be included in income until the period or periods in which earned. Examples are interest collected in advance, subscriptions collected in advance, and rent collected in advance. In each case the amount of the deferred credit is subtracted from the trial balance figure to determine the correct income of the current period. Each deferred credit appears in the balance sheet as a liability to be satisfied by services or product. (See Chapter II.)

Assume:

Rent Earned account in the trial balance.................... ...	$390.00	(Trial Balance)
Rent collected but unearned in the period...............	30.00	(Balance Sheet)
Rent income for the period .	$360.00	(Profit and Loss)

The following adjusting entry is necessary:

DECEMBER 31, 19__

*Rent Earned	30.00	
Rent Collected in Advance		30.00
To reduce the Rent Earned account by the amount collected in advance.		

Some deferred credits arise out of items credited to deferred liability accounts at the time the cash was received or the receivable recorded.

Assume:

Rent Collected in Advance in the trial balance....	$6,500.00	(Trial Balance)
Rent Collected in Advance, December 31, 19__.......	300 00	(Balance Sheet)
Rent income for the period. . .	$6,200.00	(Profit and Loss)

The following adjusting entry is necessary:

DECEMBER 31, 19__

Rent Collected in Advance	6,200.00	
Rent Earned		6,200.00
To reduce the Rent Collected in Advance account by the amount earned this fiscal period.		

The Depreciation of Fixed Assets

Most fixed assets depreciate because of wear and tear, climatic conditions, lapse of time, incapacity, and inadequacy. At the end of each fiscal period the estimated amount of this decline is recorded in the accounts. The practice of charging a part of the original cost of fixed assets to operation is based on the fact that the investment in depreciable fixed assets should be recovered during the life of the asset. If the decline in value is ignored, operating costs are understated and the fixed assets appear in the balance sheet at overvalued figures.

The most common method to determine the amount of the periodic depreciation of an asset is to estimate the number of years or months during which the asset may be expected to function efficiently under the maintenance policy and method of use of the enterprise owning it. The net cost—cost minus scrap value—of the asset is divided by this estimate and the quotient is the amount of depreciation to be charged to each period, year or month. The periodic charge expressed as a fixed percentage of cost may be determined by dividing the periodic depreciation by the cost price of the asset.

Assume:

Furniture and fixtures acquired at a cost of......	$4,000.00
Estimated life 10 years, with an assumed scrap value of..................................	400.00
Net cost to be written off	$3,600.00

Each year $360.00 should be charged as an expense. This is 9 per cent of the $4,000.00 cost price.

The following adjusting entry is necessary:

December 31, 19__		
*Depreciation of Furniture and Fixtures	360.00	
Reserve for Depreciation of Furniture and Fixtures		360.00
To record the 9 per cent depreciation of furniture and fixtures for the period.		

These facts in ledger form are as follows:

Furniture and Fixtures

19__										
Dec.	31			4,000	00					

Reserve for Depreciation of Furniture and Fixtures

						19— Dec.	31		J	360.00

Depreciation of Furniture and Fixtures

19— Dec.	31		J	360.00						

As there are many depreciable fixed assets it is best to qualify the debit by the name of the asset. The *reserve* account which is kept for each group of depreciable fixed assets is credited instead of the asset account as it is preferable to keep the asset account on the books at the cost price. The purpose of the reserve account is to modify the value of an asset, hence it is termed a valuation reserve.

Valuation reserve accounts have credit balances. They are not, however, either liability, proprietorship, or income accounts. They exist in lieu of credits to assets and for account classification purposes should be considered as parts of the assets they offset. It is good practice and follows sound theory to present these valuation accounts on a balance sheet as deductions from the assets to which they refer, thus:

Furniture and Fixtures..........................	$4,000.00	
Less: Reserve for Depreciation..................	360.00	$3,640 00

Assume:

Buildings which cost $8,000.00 are considered to be depreciating each year at the rate of 5 per cent of cost.

The following adjusting entry is necessary:

December 31, 19—

*Depreciation of Buildings	400.00	
Reserve for Depreciation of Buildings		400.00
To record the expense for the period of the depreciation of buildings at the rate of 5 per cent.		

After the first fiscal period the trial balance will have a figure for each reserve for depreciation of assets purchased in previous periods and still in use. The adjusting entry increases the balance of each such account.

Assume:

Buildings cost..................	$8,000.00	
Reserve for Depreciation of Buildings in the trial balance.	$ 800.00	(Trial Balance)
Depreciation of buildings for the year........................	400.00	(Profit and Loss)
Reserve for Depreciation, December 31, 19__..............	$1,200.00	(Balance Sheet)

The subject of depreciation is of such importance that further consideration will be given to it in Chapter XV.

Estimated Bad Debts

A business that extends credit can estimate with a fair degree of accuracy from past experience the amount of its claims on other individuals and enterprises which may be expected to be uncollectible. Some attempt should be made, therefore, at the end of a period to reduce the value of such claims to a fair appraisal of their realizability and also to adjust the income by the amount of the anticipated loss. Expected losses from receivables are considered expenses of the periods in which the credits are extended and not of the periods in which the claims prove uncollectible.

Since it is impossible to point out the particular accounts and notes receivable which will not be collected, no credit can be made directly to these accounts. A new ledger account is opened, therefore, and is known as Reserve for Bad Debts. It is another valuation reserve account and its balance is subtracted from Accounts Receivable in the balance sheet.

If the experience of a number of years shows that claims on others to an amount which is approximately 1 per cent of the net sales have been uncollectible periodically, an entry is made at the end of a period debiting Bad Debts and crediting Reserve for Bad Debts for such an amount.

Assume net sales for a period $50,000.00, and estimated loss by bad debts to be 1 per cent of net sales.

To record the adjustment for bad debts the following entry is necessary:

December 31, 19__

*Bad Debts	500.00	
Reserve for Bad Debts		500.00
To adjust the books by the amount of estimated uncollectible claims, 1 per cent of net sales of $50,000.00.		

After the first fiscal period in which a Reserve for Bad Debts account is created, there will be a figure in the trial balance for that account. As Reserve for Bad Debts is credited with *estimated* bad debts and is debited in subsequent periods with the *actual* losses arising out of claims on customers, the Reserve for Bad Debts in the trial balance will have a credit balance if actual losses are less than estimated, and a debit balance if the contrary is true.

The balance sheet figure for Reserve for Bad Debts is the amount which the businessman has learned from past experience to be reasonable. The figure used in the adjusting entry agrees with the amount used in the statement of profit and loss for the period. It is the amount necessary to bring the trial balance figure up to the point where it is a reasonable reserve.

Assume:

Accounts Receivable in the trial balance	$10,000.00	
Reserve for Bad Debts in the trial balance, credit balance	$ 30.00	(Trial Balance)
Reserve for Bad Debts in the balance sheet, December 31, 19__	300.00	(Balance Sheet)
Bad debts expense for the year	$ 270.00	(Profit and Loss)

Assume:

Accounts Receivable in the trial balance	$10,000.00	
Reserve for Bad Debts in the trial balance, debit balance	$ 30.00	(Trial Balance)
Reserve for Bad Debts in the balance sheet, December 31, 19__	300.00	(Balance Sheet)
Bad debts expense for the year	$ 330.00	(Profit and Loss)

Miscellaneous Adjustments

Such miscellaneous adjustments as develop will be considered in later chapters.

Guiding Principles on Adjustments

As the subject of adjusting the books is a difficult one for beginning students in accounting, the following statement of principles reemphasizes some salient features:

1. Adjustments are necessary to make the books agree with the figures in the balance sheet and statement of profit and loss.
2. With respect to accruals and deferred items
   a. The trial balance figures should be viewed as representing the cash paid or received for the items, whether they bear real or nominal account captions.
   b. Accruals are always added to trial balance figures to determine income or expense figures.
   c. Deferred items are always deducted from trial balance figures to determine income or expense figures.
   d. The figures used in the adjusting entries for accruals are the amounts to be shown in the balance sheet.
   e. The figures used in the adjusting entries for deferred items are
      (1) The amounts to be shown in the balance sheet if the trial balance captions are those of nominal accounts.
      (2) The amounts to be shown in the statement of profit and loss if the trial balance captions are those of real accounts.
3. Adjustments for reserves for depreciation and reserve for bad debts always increase the reserve account balances. The figures used in the adjusting entries are always the amounts that appear in the statement of profit and loss for the period.

Coordinating Illustration

The adjusting entries marked with an asterisk in this chapter pertained to the books of Robert R. Clifton, whose trial balance, December 31, 19—, before adjustments, follows:

ROBERT R. CLIFTON

TRIAL BALANCE, DECEMBER 31, 19__

	Debit	Credit
Cash	$ 3,200.00	
Accounts Receivable	8,000.00	
Notes Receivable	1,000.00	
Inventory of Merchandise, January 1, 19__	2,000.00	
Prepaid Insurance	500.00	
Land	2,000.00	
Buildings	8,000.00	
Furniture and Fixtures	4,000.00	
Accounts Payable		$ 2,500.00
Mortgage Payable		3,000.00
Robert R. Clifton, Capital		20,000.00
Sales		50,000.00
Purchases	40,000.00	
Store Expenses	800.00	
Salaries	5,500.00	
Property Taxes	220.00	
Office Expenses	600.00	
Interest on Mortgage	180.00	
Rent Earned		390.00
Interest Earned		110.00
	$76,000.00	$76,000.00

Adjusted Trial Balance

A trial balance taken immediately after the posting of adjusting entries is termed an adjusted trial balance. Such a trial balance contains no mixed accounts. Each account is distinctly real or nominal and represents an asset, an expense, a liability, income, or proprietorship. This is natural since the purpose of adjusting entries is to so modify the accounts that they will reveal the true condition of the business at a particular date.

The following is the adjusted trial balance of the books of Mr. Clifton, after the adjusting entries marked with an asterisk in this chapter have been posted to the ledger:

ROBERT R. CLIFTON

ADJUSTED TRIAL BALANCE, DECEMBER 31, 19__

	Debit	Credit
Cash	$ 3,200.00	
Accounts Receivable	8,000.00	
Reserve for Bad Debts		$ 500.00
Notes Receivable	1,000.00	
Accrued Interest Receivable	8.00	
Inventory of Merchandise, December 31, 19__	2,500.00	
Inventory of Store Expenses	50.00	
Prepaid Insurance	300.00	
Land	2,000.00	
Buildings	8,000.00	
Reserve for Depreciation of Buildings		400.00
Furniture and Fixtures	4,000.00	
Reserve for Depreciation of Furniture and Fixtures		360.00
Accounts Payable		2,500.00
Accrued Salaries Payable		300.00
Rent Collected in Advance		30.00
Mortgage Payable		3,000.00
Robert R. Clifton, Capital		20,000.00
Sales		50,000.00
Cost of Goods Sold	39,500.00	
Store Expenses	750.00	
Salaries	5,800.00	
Property Taxes	220.00	
Office Expenses	600.00	
Insurance	200.00	
Depreciation of Furniture and Fixtures	360.00	
Depreciation of Buildings	400.00	
Bad Debts	500.00	
Interest on Mortgage	180.00	
Interest Earned		118.00
Rent Earned		360.00
	$77,568.00	$77,568.00

QUESTIONS

1. *a.* What is meant by the expression, *adjusting the books?*
   b. What do you mean by *adjustments?*
   c. When, why, and where are *adjustments* made?
2. Name several of the items because of which a set of books may have to be adjusted.

3. Why is it not possible to determine from the trial balance the value of the inventory of merchandise at the end of a period?
4. Assume the following facts:
   Inventory of merchandise at the beginning of the period, $10,000.00.
   Inventory of merchandise at the end of the period, $15,000.00.
   Purchases during the period, $60,000.00.
   a. What was the cost of all merchandise available for sale during the period?
   b. What was the cost of the merchandise which was not sold during the period?
   c. What was the cost of the merchandise sold?
   d. Give the adjusting entries necessary for these facts.
5. Suppose the Postage account on a set of books has a debit balance of $600.00 at the end of a period and the postage on hand amounts to $50.00.
   a. What amount of expense for the period is indicated by the above facts?
   b. Do these facts indicate any item which should appear on the balance sheet? If so, under what main heading, and under what account title?
   c. Give the adjusting entry necessary for these facts.
6. *a.* What is meant by an *accrued item?*
   b. Give an illustration of an *accrual payable.*
   c. Give an illustration of an *accrual receivable.*
7. Suppose the property taxes of an enterprise in the amount of $600.00 had not been paid at the end of a fiscal year.
   a. Did the enterprise have any tax expense that year?
   b. Give the adjusting entry, if any such entry is necessary for this fact.
8. Suppose an enterprise purchased $200,000.00 of 6 per cent bonds at par on the date they were issued April 1. Six months' interest was received on the bonds October 1. The enterprise kept its books on the accrual basis and its fiscal year ended December 31.
   a. What amount of interest was earned that period?
   b. What amount of interest was collected that period?
   c. What amount of interest was accrued at the end of the period?
   d. How much for interest would be entered in the statement of profit and loss for the period?
   e. How much for interest accrued would be entered on the balance sheet at the end of the period? In which section of the balance sheet?
9. *a.* What do you mean by a *deferred item?*
   b. What do you mean by a *deferred charge?*

c. What do you mean by a *deferred credit?*
d. Give an illustration of a *deferred charge.*
e. Give an illustration of a *deferred credit.*

10. Suppose an enterprise paid, in the month of January, $1,200.00 for property taxes for the current year. Assume also that the fiscal year of this enterprise is the calendar year.
a. Did the enterprise have any deferred charge or deferred credit; if so, how much on January 31? On March 31?
b. What would be the tax expense of this enterprise for the month of August?
c. If this enterprise adjusts its books monthly, give any necessary adjusting entry on January 31. On October 31.

11. What would be the effect on the *net profit for a period* and the *net worth* of an enterprise, if depreciation was overlooked? If the estimate for depreciation was overstated?

12. *a.* What do you mean by the expression *a valuation reserve account?*
b. Give an illustration of a *valuation reserve account.*
c. Does a *valuation reserve account* appear on the statement of profit and loss, the balance sheet, or both? Under what section or sections?

13. Assume a business has owned a delivery truck for one year. The truck cost $1,150.00; the owner of the business expects to use it four years and thinks it will have a trade-in value of $150.00 at the end of that time.
a. Give the adjusting entry necessary for the above facts at the end of the first year of the life of the truck.
b. Give the adjusting entry at the end of the second year.
c. How would the value of this truck be shown on the balance sheet at the end of the third year?

14. Assume the estimated *bad debts* of an enterprise at the end of its first year in business amount to $240.00.
a. Give the necessary adjusting entry.
b. Why, in your answer to *a* above, did you credit Reserve for Bad Debts?

15. *a.* What do you mean by *an adjusted trial balance?*
b. Are there any mixed accounts in an *adjusted trial balance?* Why?

16. *a.* Suppose insurance premiums are charged to the account Prepaid Insurance which account has a debit balance of $600.00. Suppose also that the amount of insurance which has expired at the end of the period is $200.00. Give the adjusting entry.
b. Suppose insurance premiums are charged to the account Insurance, which account has a debit balance of $600.00. Suppose also that $400.00 of the above $600.00 is unexpired at the end of the period. Give the adjusting entry.

17. Would the net profit be overstated or understated and by what amount if

a. Prepaid wages of $50.00 and unearned rent of $200.00 were ignored?

b. Accruals receivable of $120.00 were omitted and the final inventory of merchandise were overvalued by $100.00?

18. If a trial balance figure is affected by both an accrual and a deferred item, will the amount in the statement of profit and loss be more or less than the trial balance figure? Explain.

CHAPTER XII

CLOSING THE BOOKS

Adjusting the books, which was the subject of the preceding chapter, should be done at least once every twelve months. A year is the usual period of time for the measurement of results. A person thinks of his age in terms of years, of his income on an annual basis, and is accustomed to paying taxes which are usually assessed or determined yearly. It is not unusual to hear expressions such as, "We made a profit last year," or "We made a profit this year in contrast to a loss last year." Seldom, if ever, are heard expressions such as, "Our company made a profit in the first seventeen years of its existence," or "My business suffered a loss in its second nineteen-months period." The year is the popular period of time for business comparisons.

The records of the income and expense items throughout a fiscal period are accumulated in the nominal accounts. If these accounts are to show their facts plainly, period by period, it is necessary that they be cleared of their figures at the end of each period. This clearing of the nominal accounts is known as closing the ledger, closing the accounts, or closing the books.

Definition and Purposes of Closing the Books

Closing the books is the process wherein, by journal entries, the balances of the nominal accounts are transferred to the summary account Profit and Loss, and the balance of the Profit and Loss account, in turn, is transferred to the personal or capital account of the owner. It is the usual practice to transfer the balance of Profit and Loss to the owner's personal account and then to transfer the balance of the personal to the owner's capital account.

Books are closed at the end of a fiscal period for the following reasons:

1. To transfer to proprietorship the amount of the net profit or loss of the period so that the account or accounts of the owner will show the same net worth as the balance sheet.

2. To clear each nominal account so that its results may be indicated plainly, period by period.
3. To collect and preserve in the Profit and Loss account a summary of the nominal account balances of each period.

Closing Procedure

Closing the books is the process of journalizing and posting

1. A set of entries by means of which the balances of the nominal accounts are transferred to the Profit and Loss account.
2. An entry to transfer the balance of the Profit and Loss account to the personal account of the owner, if any, otherwise to the capital account.
3. An entry to transfer the balance of the personal account of the owner, if any, to his capital account, if the owner so desires.

In addition to journalizing and posting the transfer entries it is customary and desirable in the closing process to

1. Total and rule the nominal accounts to indicate clearly that they have no balances and are ready for a new period.
2. Total, balance, and rule the real accounts where necessary to indicate clearly that their balances agree with the figures shown in the balance sheet.
3. Prepare a postclosing trial balance as a check on the accuracy of the clerical work incident to the closing process.

The Profit and Loss Account

The Profit and Loss account is a temporary, summary account created and then closed in the closing process. Prior to the consideration of this topic, reference was not made to it. It was not necessary since it is not used in the recording of other than closing entries. The student should not be confused by a popular expression which is often heard when a person has suffered a loss, "Oh, I shall charge it to Profit and Loss." Current items of income or expense should never be credited or charged directly to the Profit and Loss account. To do so would hide the source of the particular income or expense item.

Similarly the Profit and Loss account should not be confused with the profit and loss statement. The latter is outside the books, the former is an account placed on the books when they are closed.

The Profit and Loss account has the same characteristics as any other nominal account since it is a summary of them. It is created as the result of closing journal entries which

1. Debit Profit and Loss and credit each nominal account which has a debit balance.

ROBERT R. CLIFTON

ADJUSTED TRIAL BALANCE, DECEMBER 31, 19__

	Debit	Credit
Cash	$ 3,200.00	
Accounts Receivable	8,000.00	
Reserve for Bad Debts		$ 500.00
Notes Receivable	1,000.00	
Accrued Interest Receivable	8.00	
Inventory of Merchandise, December 31, 19__	2,500.00	
Inventory of Store Expenses	50.00	
Prepaid Insurance	300 00	
Land	2,000.00	
Buildings	8,000.00	
Reserve for Depreciation of Buildings		400.00
Furniture and Fixtures	4,000.00	
Reserve for Depreciation of Furniture and Fixtures		360.00
Accounts Payable		2,500.00
Accrued Salaries Payable		300.00
Rent Collected in Advance		30.00
Mortgage Payable		3,000.00
Robert R. Clifton, Capital		20,000.00
Sales		50,000.00
Cost of Goods Sold	39,500.00	
Store Expenses	750.00	
Salaries	5,800.00	
Property Taxes	220.00	
Office Expenses	600.00	
Insurance	200.00	
Depreciation of Furniture and Fixtures	360.00	
Depreciation of Buildings	400.00	
Bad Debts	500.00	
Interest on Mortgage	180.00	
Interest Earned		118.00
Rent Earned		360.00
	$77,568.00	$77,568.00

2. Credit Profit and Loss and debit each nominal account which has a credit balance.

The Profit and Loss account is closed by a journal entry which

1. Debits Profit and Loss and credits the personal or capital account of the owner, if there is a net profit, or
2. Credits Profit and Loss and debits the personal or capital account of the owner, if there is a net loss.

Illustration

To illustrate the closing process, the entries to close the books of Robert R. Clifton are given.

The trial balance on page 142 is an abstract of the ledger of Robert R. Clifton after his books were adjusted at the end of the period. It is a copy of the adjusted trial balance developed in the preceding chapter. There are no mixed accounts in it. Each account is either real or nominal.

The nominal accounts are to be closed. They are to be transferred to the summary account Profit and Loss. Since nominal accounts with debit balances are to be transferred to the debit side of Profit and Loss, the following compound entry closes all of them.

Profit and Loss	48,510.00	
Cost of Goods Sold		39,500.00
Store Expenses		750.00
Salaries		5,800.00
Property Taxes		220 00
Office Expenses		600.00
Insurance		200 00
Depreciation of Furniture and Fixtures		360.00
Depreciation of Buildings		400.00
Bad Debts		500.00
Interest on Mortgage		180.00
To transfer the debit nominal account balances to Profit and Loss.		

The posting of the above entry closes the debit nominal accounts and places the aggregate of their balances, $48,510.00, on the debit side of the Profit and Loss account.

Since the credit nominal accounts are to be transferred to the credit of the Profit and Loss account, the following compound entry closes all of them.

Sales	50,000.00	
Interest Earned	118.00	
Rent Earned	360.00	
Profit and Loss		50,478.00
To transfer the credit nominal account balances to Profit and Loss.		

The posting of the above entry closes the credit nominal accounts and places the aggregate of their balances, $50,478.00, on the credit side of the Profit and Loss account.

Since the balance in the Profit and Loss account is a credit, it is the net profit for the period. This net profit is to be transferred to the capital account of Mr. Clifton, since he has no personal account, and is accomplished by the following entry:

Profit and Loss	1,968.00	
Robert R. Clifton, Capital		1,968.00
To transfer the net profit for the year ended December 31, 19__ to Robert R. Clifton, Capital.		

The Profit and Loss account of Robert R. Clifton, as it appears in the ledger ruled and closed, is as follows:

Profit and Loss

19__						19__					
Dec.	31		J	48,510	00	Dec.	31		J	50,478	00
	31		J	1,968	00						
				50,478	00					50,478	00

Ruling and Balancing the Accounts

It is customary to total and rule the nominal accounts after the closing entries are posted. The method of ruling is the same as shown in Chapter V for the real accounts, except that there is no balance shown either above or below the rulings.

Real accounts may be balanced and ruled at any time without disturbing the equality of debit and credit. The personal accounts with customers and creditors may be balanced and ruled frequently. All real accounts should be balanced and ruled at the end of the fiscal year, where necessary.

The Postclosing Trial Balance

It is quite easy to make clerical errors in the process of journalizing and posting the closing entries, and especially in the ruling and balancing of the real accounts. After closing, the books should be in balance, and at the end of the first month of a new period it will be presumed that they were in balance at the end of the past period. An error in closing, or ruling and balancing, at the end of a period may cause much inconvenience when the next regular trial balance is prepared, because the error may not be discovered in the course of the new month's work. It is desirable, therefore, after posting the closing entries and balancing and ruling the accounts to make a test of the equality of debits and credits. Such a test, if presented as a trial balance, is known as a postclosing or proof trial balance.

ROBERT R. CLIFTON

Postclosing Trial Balance, December 31, 19__

	Debit	Credit
Cash	$ 3,200.00	
Accounts Receivable	8,000.00	
Reserve for Bad Debts		$ 500.00
Notes Receivable	1,000.00	
Accrued Interest Receivable	8.00	
Inventory of Merchandise, 12/31/19__	2,500.00	
Inventory of Store Expenses	50.00	
Prepaid Insurance	300.00	
Land	2,000.00	
Buildings	8,000.00	
Reserve for Depreciation of Buildings		400.00
Furniture and Fixtures	4,000.00	
Reserve for Depreciation of Furniture and Fixtures		360.00
Accounts Payable		2,500.00
Accrued Salaries Payable		300.00
Rent Collected in Advance		30.00
Mortgage Payable		3,000.00
Robert R. Clifton, Capital		21,968.00
	$29,058.00	$29,058.00

A trial balance taken after closing contains only real accounts, as the nominal accounts have been closed. The same items as appear in the balance sheet appear in the postclosing trial balance, but the balance sheet differs from it in form and arrangement.

Since there is no use for a postclosing trial balance other than as a test of equilibrium, this test is often reduced to mere lists of debit and credit balances without account titles.

The postclosing trial balance of the books of Robert R. Clifton, which appears on page 145, is similar in appearance to any other trial balance. It contains the same figures as the adjusted trial balance used in the illustration of this chapter, except that the nominal accounts are missing and Robert R. Clifton's Capital account shows a credit balance of $21,968.00.

After the completion of the closing process the detailed items on the ledger again may be represented by the fundamental accounting equation

$$\text{Assets} = \text{Liabilities} + \text{Proprietorship}$$

QUESTIONS

1. *a.* What is meant by the expression *the process of closing the books?*
   b. When is it customary *to close the books?* Why?
   c. Are all the accounts on a ledger closed in the closing process? What accounts are closed? Why aren't all the accounts closed?
   d. Why are books closed?
2. *a.* Are journal entries used in the process of closing the books? Why?
   b. Could books be closed without the use of the Profit and Loss account? Explain.
3. *a.* What account balances are transferred to the debit of Profit and Loss? To the credit of Profit and Loss?
   b. A debit balance in Profit and Loss indicates a net gain or a net loss for the period?
   c. What should be done with the balance of Profit and Loss?
4. *a.* Should current items of income and expense ever be credited or charged to Profit and Loss? Why?
   b. Is there any difference between the Profit and Loss account and the profit and loss statement?
5. Indicate whether the following statements are true or false:
   a. Ruling and balancing the real accounts is the most important feature of the process of closing the books.
   b. The real accounts are closed when they are balanced.
   c. Closing the books is accomplished by means of journal entries.
   d. Income account balances are transferred to the credit of Profit and Loss.
   e. Nominal accounts with debit balances are transferred to the credit of Profit and Loss.

f. There are open accounts on a set of books after closing.
g. The Profit and Loss account is both opened and closed in the closing process.
h. The items on a *postclosing trial balance* are the same as the items which appear in the statement of profit and loss.
i. A *postclosing trial balance* contains only real accounts.

6. *a.* What is a trial balance?
b. What is an adjusted trial balance?
c. What is a postclosing trial balance?
d. Why is a postclosing trial balance taken?

7. *a.* Distinguish between a balance sheet and a postclosing trial balance.
b. Will the total of the formal balance sheet agree with the total of the postclosing trial balance? Explain.

8. Name at least three important facts which are disclosed by a statement of profit and loss but not by the Profit and Loss account.

9. Give at least two accounts which are exceptions to the following statement: "All credit accounts in a postclosing trial balance are liabilities."

10. Are all debit accounts in a postclosing trial balance assets?

11. *a.* Would there be any harm done, if a bookkeeper ruled and balanced a nominal account during a period?
b. What do you mean by *ruling* and *balancing* an account?

12. Indicate whether the following statements are true or false. Qualify your answer, if necessary.
a. An adjusted trial balance contains no mixed accounts.
b. There are no nominal accounts in a postclosing trial balance.
c. In order to close an expense account, it is debited.
d. The balance of a Reserve for Depreciation account is larger in the postclosing trial balance than it was in the trial balance.
e. The balance of a Reserve for Depreciation account is larger in the postclosing trial balance than it was in the adjusted trial balance.

13. *a.* If monthly statements are prepared for an enterprise, are its books closed monthly?
b. How can monthly statements of profit and loss be prepared, if the books are not closed monthly?
c. If monthly statements are prepared, are the books adjusted monthly?
d. Would it be an advantage or a disadvantage to an enterprise to close its books monthly?

14. Suppose a complete set of books had been kept for an enterprise for a period of four years but had never been closed and statements had never been prepared.

a. Could a balance sheet be prepared for this enterprise at the end of the four years?

b. What would be the heading on the statement of profit and loss of this enterprise, if such a statement were prepared?

15. Why is it the custom to close the books once a year?

16. After the postclosing trial balance is prepared it is discovered that the

a. Inventory of merchandise was overstated $100.00.

b. Reserve for depreciation of buildings was understated $80.00.

What entries would be necessary to correct the books?

CHAPTER XIII

THE WORK SHEET—ITS CONSTRUCTION AND USE

In Chapter XI, "Adjusting the Books," there was considered the process of modifying the accounts so that they would show the true condition of the business. In the last chapter, "Closing the Books," there was considered the process of closing the nominal accounts and consolidating the net result with the proprietor's account at the end of a fiscal period.

The topics of Chapters XI and XII are extremely important and difficult parts of accounting, and require very careful attention to numerous and significant factors. No matter how skilled in accounting, a person usually does not proceed to make a set of difficult adjusting entries directly in the journal of an enterprise, to post them to the ledger, to take an adjusted trial balance, to prepare the statements, and to make and post the closing entries, without first preparing a preliminary draft of his solution. Such a preliminary draft is the subject matter of this chapter. It is made in a rather definite form and is known as a work sheet.

Definition

A work sheet is a columnar sheet on which, in addition to the trial balance, are collected, classified, and summarized the data essential to the adjusting entries, the closing entries, and the preparation of the statements—balance sheet, profit and loss, and analysis of proprietorship.

The Work Sheet—Its Objects and Advantages

A work sheet is desirable for the following reasons:

1. It brings together the trial balance and the adjusting data.
2. It classifies and summarizes the information shown by the trial balance and the adjusting data, thus facilitating
   a. The preparation of the formal statements.
   b. The preparation of the closing entries.

3. It reveals the net results of the period much more quickly than is true when the results are not known until the formal statements are prepared.
4. It assists in the location of any errors which may be made in adjusting, closing, and balancing the accounts.
5. It makes possible the preparation of statements during the fiscal period without the necessity of formal adjusting, and closing entries.

Since the purpose of accounts is to aid management in its control of an enterprise, the work sheet is extremely important because it furnishes a quick means of determining results. The use of a work sheet makes it possible for an enterprise to ascertain results and have statements prepared from time to time during the year (monthly results are quite common), and to postpone formal adjusting, and closing entries to the end of the fiscal year.

The Work Sheet—Its Structure

Work sheets have six, eight, ten, or more columns depending on the amount of the data which must be considered as a supplement to the trial balance and on the use to which the information is to be put. The form to be followed in this text provides ten columns. There are columns for the balances of the ledger accounts, the adjusting data, the balances of the ledger accounts as they would appear after the posting of adjusting entries, and other columns to show the ultimate disposition of these balances to the profit and loss statement or the balance sheet.

The Work Sheet—Its Form

TEN-COLUMN WORK SHEET

F	Account Titles	Trial Balance		Adjustments		Adjusted Trial Balance		Profit and Loss Items		Balance Sheet Items	
		Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
		1	2	3	4	5	6	7	8	9	10

The F column to the extreme left is used to indicate the number of the ledger page on which each account is found.

Under Account Titles are entered the titles of the open accounts in the ledger and such supplementary account captions as are necessitated by the adjusting data.

In Columns 1 and 2 are placed the balances of the open accounts in the ledger.

In Columns 3 and 4 the debit and credit amounts of the adjusting data are introduced. To each adjustment is assigned a distinguishing letter. It is placed beside the several debits and credits of a particular adjustment to facilitate the preparation of the adjusting entries in the journal. The sum of all the debits in these columns is equal to the sum of all the credits.

Columns 5 and 6 represent an adjusted trial balance. In the illustration which follows, the figures in these columns are the same as those shown for the adjusted trial balance in Chapter XI since the same data were considered. The totals of both columns should be in agreement.

To Columns 7 and 8 are extended the figures for all the nominal accounts for the amounts which appear in the adjusted trial balance columns. These columns, 7 and 8, supply all the information necessary for the preparation of the statement of profit and loss, except the details needed for the cost of goods sold section, and the closing entries. The difference between the totals of these two columns is the net profit or loss for the period.

In Columns 9 and 10 are carried all the real accounts for the amounts which appear in the adjusted trial balance columns. These two columns, 9 and 10, serve as a basis for the preparation of the formal balance sheet and the statement of proprietorship. The difference between the totals of these two columns is in agreement with the difference between Columns 7 and 8.

Throughout the work sheet it is important to place each amount opposite its descriptive title if the purpose of this helpful device is to be achieved.

Adjustments on the Work Sheet

The debit and credit items used in the adjustment columns of a work sheet are the same as those used in adjusting journal entries. In posting entries to a ledger each new debit or credit item is placed beneath the last entry on its side of the account. In a work sheet each new debit or credit item is placed in the next debit or credit column to the right of the descriptive title. It

might be said that in the ledger work moves vertically downward, while in the work sheet it proceeds horizontally from left to right.

Each adjustment debit or credit to an account which does not appear in the trial balance requires that a new account be listed. These new account titles are placed below the original trial balance titles.

Adjusted Trial Balance of the Work Sheet

The figures placed in the adjusted trial balance columns of a work sheet are the result of considering amounts in the trial balance and the adjustment columns. If there is a debit balance in the trial balance columns and a debit adjustment the figure in the adjusted trial balance debit column is the sum of these two items. If both items are credits the sum is placed in the credit column of the adjusted trial balance section. If the items appear in unlike columns (trial balance debit and adjustments credit or vice versa), the debit or credit difference is extended to its proper column of the adjusted trial balance section.

Profit and Loss and Balance Sheet Columns

No mixed accounts remain after the ledger balances have been modified by the adjustments. The entire amount of each account with a balance in the adjusted trial balance columns is extended, therefore, to the proper column under profit and loss or balance sheet. If it appears in the debit adjusted trial balance column, it must be extended to a debit column in order to maintain the equality of debit and credit. Conversely, if a credit, it must be extended to a credit column.

The form shown on page 153 illustrates the method of distribution and the location of the net profit or loss for the period.

Two classes of items need special comment. The drawing or personal account of the owner is not an asset or a liability. If a debit, it is extended to the debit balance sheet column as an offset in part to the owner's capital; if a credit, to the credit balance sheet column as an addition to the owner's capital. It is needed in the statement of proprietorship. The Reserves for Depreciation and Bad Debts have credit balances and are placed in the credit balance sheet column as offsets in part to the assets whose values they reduce. In the formal balance

sheet each valuation reserve is shown as a subtraction from its related asset.

Adjusted Trial Balance		Profit and Loss		Balance Sheet	
Debit Balances	Credit Balances	Nominal Dr. Items	Nominal Cr. Items	Real Dr. Items	Real Cr. Items
If assets.....	....	....	......	Assets	
If expenses..	....	Expenses			
If owner's personal.....		....	......	Owner's Personal	
If decrease in income....		Decrease in Income			
	If liabilities......		....	....	Liabilities
	If income.	....	Income		
	If owner's capital....		....	... ..	Owner's Capital
	If reserves.	....	....	....	Reserves
		Net Profit	Net Loss	Net Loss	Net Profit

Equalizing the Profit and Loss and Balance Sheet Columns

After the extension of each item in the adjusted trial balance columns of the work sheet to the profit and loss or balance sheet sections, the next step is the placement of the totals in small lead-pencil figures at the bottom of the last four columns.

In accordance with the usual accounting procedure, the difference between the profit and loss columns is added to the column with the smaller total. If the difference is placed in the debit profit and loss column, it represents the net profit and is extended to the credit balance sheet column as an item to be considered an addition to the owner's capital. Conversely, if the difference is entered in the credit profit and loss column, it represents the net loss and is extended to the debit balance sheet column as an offset in part to the owner's capital. The work-sheet illustration shows the method of ruling and totaling the columns.

The total of the debit balance sheet column of the work sheet will not agree with the total of the assets in a formal balance sheet, if there is an item such as a net loss, a drawing account for the owner, or a valuation reserve account. Similarly, the total of the credit balance sheet column will not agree with the total of the liabilities and proprietorship in the balance sheet. It

must be borne in mind that the work sheet is merely an aid to the accountant. It is not exhibited as a statement of business condition, even to the owner. From it are prepared the statements which are exhibited to the owner, creditors, and other interested parties. These statements, as has been shown previously, are designed to be as nontechnical as possible, that they may be clear to a person untrained in accounts.

If the work sheet balances, it is not positive proof that the results are correct. It indicates merely that the equality of debit and credit has been maintained. For example, if a debit item in the adjusted trial balance columns were placed by error in the debit balance sheet column instead of the debit profit and loss column, the work sheet would still balance, but the statements prepared from the work sheet would not exhibit the true condition of the enterprise.

The Work Sheet—Illustration

A complete work sheet based on the facts set forth in Chapter XI appears on page 155.

To avoid constant reference to Chapter XI, the adjustment facts on which this work sheet is based are here restated.

The supplementary data consist of

Inventory of merchandise, December 31, 19__....	$2,500.00
Inventory of store expenses, December 31, 19__...	50.00
Unrecorded salaries owing to employees but not due	300.00
Accumulated interest on unmatured notes receivable......	8.00
Unexpired insurance, December 31, 19__.........	300.00
Rent collected in advance (unearned rent), December 31, 19__..........	30.00
Depreciation of furniture and fixtures.........	360.00
Depreciation of buildings....................	400 00
Estimated bad debts..........................	500.00

In Columns 3 and 4 are found a debit and a credit for each item of the supplementary data. Offsetting debits and credits are related by means of the identifying letters used. It should be noted that the debits and credits identified by the letter (b) do not represent an item of the supplementary data. That particular adjustment is necessary to accumulate the total debit to Cost of Goods Sold account. It will be noticed also that the balance of the Cost of Goods Sold account shown in

ROBERT R. CLIFTON

WORK SHEET, DECEMBER 31, 19__

Account Titles	Trial Balance Dr.	Trial Balance Cr.	Adjustments Dr.	Adjustments Cr.	Adjusted Trial Balance Dr.	Adjusted Trial Balance Cr.	Profit and Loss Dr.	Profit and Loss Cr.	Balance Sheet Dr.	Balance Sheet Cr.
Cash	3,200 00				3,200 00				3,200 00	
Accounts Receivable	8,000 00				8,000 00				8,000 00	
Notes Receivable	1,000 00				1,000 00				1,000 00	
Inventory of Merchandise 1/1/19__	2,000 00			(b) 2,000 00						
Prepaid Insurance	500 00			(f) 200 00	300 00				300 00	
Land	2,000 00				2,000 00				2,000 00	
Buildings	8,000 00				8,000 00				8,000 00	
Furniture and Fixtures	4,000 00				4,000 00				4,000 00	
Accounts Payable		2,500 00				2,500 00				2,500 00
Mortgage Payable		3,000 00				3,000 00				3,000 00
Robert R. Clifton, Capital		20,000 00				20,000 00				20,000 00
Sales		50,000 00				50,000 00		50,000 00		
Purchases	40,000 00			(b) 40,000 00						
Store Expenses	800 00			(c) 50 00	750 00		750 00			
Salaries	5,500 00		(d) 300 00		5,800 00		5,800 00			
Property Taxes	220 00				220 00		220 00			
Office Expenses	600 00				600 00		600 00			
Interest on Mortgage	180 00				180 00		180 00			
Rent Earned		390 00	(g) 30 00			360 00		360 00		
Interest Earned		110 00		(e) 8 00		118 00		118 00		
	76,000 00	76,000 00								
Cost of Goods Sold			(b) 42,000 00	(a) 2,500 00	39,500 00		39,500 00			
Inventory of Merchandise, 12/31/19__			(a) 2,500 00		2,500 00				2,500 00	
Inventory of Store Expenses			(c) 50 00		50 00				50 00	
Accrued Salaries Payable				(d) 300 00		300 00				300 00
Accrued Interest Receivable			(e) 8 00		8 00				8 00	
Insurance			(f) 200 00		200 00		200 00			
Rent Collected in Advance				(g) 30 00		30 00				30 00
Depreciation of Fur. and Fix.			(h) 360 00		360 00		360 00			
Res. for Depr. of Fur. and Fix.				(h) 360 00		360 00				360 00
Depreciation of Buildings			(i) 400 00		400 00		400 00			
Reserve for Depr. of Bldgs.				(i) 400 00		400 00				400 00
Bad Debts			(j) 500 00		500 00		500 00			
Reserve for Bad Debts				(j) 500 00		500 00				500 00
			46,348 00	46,348 00	77,568 00	77,568 00				
Net Profit for the Period							1,968 00			1,968 00
							50,478 00	50,478 00	29,058 00	29,058 00

the debit adjusted trial balance column ($39,500.00) is a profit and loss item, representing the actual cost of goods sold.

The Work Sheet—Its Use

After the work sheet is completed it does not matter to what use it is placed first. Any of the formal statements may be pre-

ROBERT R. CLIFTON

Statement of Profit and Loss

For the Year Ended December 31, 19__

Sales		$50,000.00
Cost of Goods Sold:		
Inventory of Merchandise, January 1, 19__	$ 2,000.00	
Purchases	40,000.00	
	$42,000.00	
Less: Inventory of Merchandise, December 31, 19__	2,500.00	
Cost of Goods Sold		39,500.00
Gross Profit on Sales		$10,500.00
Less Operating Expenses:		
Salaries	$ 5,800.00	
Store Expenses	750.00	
Office Expenses	600.00	
Depreciation of Buildings	400.00	
Depreciation of Furniture and Fixtures	360 00	
Insurance	200.00	
Property Taxes	220.00	
Bad Debts	500 00	
Total Operating Expenses		8,830.00
Net Profit on Sales		$ 1,670.00
Other Income:		
Interest Earned	$ 118.00	
Rent Earned	360.00	
	$ 478.00	
Other Expenses:		
Interest on Mortgage	180.00	298.00
Net Profit for the Period		$ 1,968 00

ROBERT R. CLIFTON

Analysis of Proprietorship

For the Year Ended December 31, 19__

Net Worth as shown by the Balance Sheet, December 31, 19__	$21,968.00
Net Worth, January 1, 19__	20,000.00
Net Profit as shown by the Statement of Profit and Loss	$ 1,968.00

ROBERT R. CLIFTON

BALANCE SHEET, DECEMBER 31, 19__

Assets

Current Assets:			
Cash			$ 3,200 00
Accounts Receivable		$8,000.00	
Less: Reserve for Bad Debts		500.00	7,500.00
Notes Receivable			1,000.00
Accrued Interest Receivable			8.00
Inventory of Merchandise			2,500 00
Total Current Assets			$14,208 00
Deferred Charges:			
Inventory of Store Expenses		$ 50.00	
Prepaid Insurance		300.00	
Total Deferred Charges			350.00
Fixed Assets:			
Land		$2,000.00	
Buildings	$8,000.00		
Less: Reserve for Depreciation	400.00	7,600.00	
Furniture and Fixtures	$4,000.00		
Less: Reserve for Depreciation	360.00	3,640 00	
Total Fixed Assets			13,240.00
Total Assets			$27,798 00

Liabilities

Current Liabilities:	
Accounts Payable	$ 2,500.00
Accrued Salaries Payable	300.00
Total Current Liabilities	$ 2,800.00
Deferred Credits:	
Rent Collected in Advance	30.00
Fixed Liabilities:	
Mortgage Payable	3,000.00
Total Liabilities	$ 5,830.00
Proprietorship	
Robert R. Clifton, Capital	21,968.00
Total Liabilities and Proprietorship	$27,798.00

pared first or the adjusting and closing entries may be made. At this point the student should realize that once a work sheet has been completed, the recording of the adjusting entries in the journal is a mere matter of copying the entries indicated by Columns 3 and 4. The entries suggested here are identical with those marked with an asterisk in Chapter XI. The entries necessary to close the books are indicated by the profit and loss columns, 7 and 8. It is advisable to compare these columns with the closing entries for the same problem given in Chapter XII. The data for the profit and loss statement are in Columns 7 and 8 although reference may have to be made to other columns for details such as are needed to present the cost of goods sold section of the statement. The data for the balance sheet are in Columns 9 and 10, as is the information necessary for the analysis of proprietorship statement.

The several statements prepared from this work sheet are shown on pages 156 and 157.

REVIEW OF ACCOUNTING PROCEDURE

Inasmuch as the major operations in the construction and presentation of the accounts of an enterprise have been covered, it seems desirable to restate them in the order in which they occur, and to emphasize them by a brief review.

The major operations in the order of their occurrence may be listed:

Title of Operation	When Performed
1. Journalizing	Daily
2. Posting	Daily for items for which it is necessary to know daily balances
3. Taking a Trial Balance	Monthly
4. Recording Adjustments (on the books, on a work sheet, or on both, but always on the books at the end of each fiscal year).	Whenever a statement of profit and loss and a balance sheet are desired. This is usually monthly, quarterly, semiannually, or annually.
5. Preparing a Statement of Profit and Loss	
6. Preparing a Balance Sheet	
7. Closing the Books	Usually this operation is performed only once every twelve months, at the end of the fiscal year.

Steps 5, 6, and 7 are listed in an arbitrary order. Which of these three operations is done first, second, and third is a matter of personal preference.

It will be noticed that the work sheet, an important piece of accounting work, is not listed as a separate major operation. It develops in connection with steps 4, 5, 6, and 7 and is purely an aid to an accountant. It is not a part of the book records.

An operation in which accounting plays a very important part is not included as one of the distinctly major accounting steps. This is the process of gathering the supplementary data essential to recording adjustments. Taking the inventories of merchandise and supplies; determining the amount of accrued and deferred items; ascertaining the amount of depreciation applicable to various fixed assets; estimating the amount of bad debts; and gathering other data requiring adjustments represent a tremendous task in the usual business of any considerable size.

Operations, such as totaling, balancing and ruling accounts, correcting errors, posting adjusting entries, and taking an adjusted or a postclosing trial balance, while important, are not considered major operations.

QUESTIONS

1. What is a *work sheet?* When and why is it prepared?
2. Is a *work sheet* prepared before or after the adjusting journal entries? The statements? The closing entries?.
3. Is a *work sheet* ever prepared without formal adjusting entries being made; if so when and why?
4. Is a work sheet ever prepared without formal statements being made? Explain.
5. Is a work sheet ever prepared without formal closing entries being made? Explain.
6. Think of a ten-column work sheet and answer the following questions by numbers.
   a. What columns supply the information for the adjusting entries?
   b. What columns supply the information for the balance sheet?
   c. What columns supply the information for the statement of profit and loss?
   d. What columns supply the information for the closing entries?
   e. What columns supply the information for the analysis of proprietorship?
   f. What columns are equivalent to an adjusted trial balance?

g. What columns supply the information taken from the ledger before adjustments are made?

7. Why are letters used alongside the amounts in Columns 3 and 4?

8. *a*. Do any mixed accounts appear in Columns 1 and 2?

b. Do any mixed accounts appear in Columns 5 and 6? In 7 and 8? In 9 and 10?

9. *a*. An item in Column 5 is always extended to one of what other two columns? Why?

b. An item in Column 6 is always extended to one of what other two columns? Why?

10. Is the net worth of an enterprise shown in one figure in the work sheet? Explain.

11. What items, other than assets, may appear in the debit balance sheet column?

12. What items, other than liabilities, may appear in Column 10?

13. To which two columns is the net profit added? The net loss?

14. The proprietor's personal account appears in which balance sheet column?

15. Indicate any differences between the balance sheet columns of the work sheet and the postclosing trial balance.

16. Will the totals of the balance sheet columns of the work sheet agree with those of the formal balance sheet? Explain.

17. *a*. Would the work sheet balance, if the amount of Notes Payable were placed in Column 8 instead of Column 10? If the debit balance of the proprietor's personal account were placed in Column 7 instead of Column 9?

b. If a work sheet balances, is it positive proof that the results shown are correct?

18. Suppose the following items appear in Column 5. Give, by number, the column to which each is extended.

a. Insurance.
b. Store Expenses.
c. Notes Receivable.
d. Inventory of Store Expenses.
e. Salaries.
f. Furniture and Fixtures.
g. Depreciation of Buildings.
h. Cost of Goods Sold.
i. Prepaid Insurance.
j. Bad Debts.

19. Suppose the following items appear in Column 6. Give, by number, the column to which each is extended.

a. Sales.
b. Reserve for Depreciation.
c. Notes Payable.
d. Accrued Salaries Payable.
e. Rent Earned.
f. Interest Collected in Advance.
g. Reserve for Bad Debts.
h. Interest Earned.

20. List the steps in the accounting cycle of operations, in the order in which you think they occur.

21. Must the formal statements be prepared before the books are closed? Explain.

CHAPTER XIV

INVENTORIES, ACCRUALS, AND DEFERRED ITEMS

In Chapter XI it was shown that it is necessary to adjust a set of books at the end of a period, because of·

1. The closing inventory of merchandise.
2. The closing inventories of supplies.
3. The unrecorded accrued items:
   a. Accruals payable.
   b. Accruals receivable.
4. Deferred items:
   a. Deferred charges to subsequent periods.
   b. Deferred credits to subsequent periods.
5. The depreciation of fixed assets.
6. The estimated bad debts.
7. Other matters for which provision should be made.

In order to have more complete information about and to decide the ultimate disposition of the adjustment items, each of those marked with an asterisk in Chapter XI will be reconsidered in this or the following chapter.

The adjusting entries require the opening of a number of new accounts. The new nominal accounts are cleared in the closing process. The new real accounts are open on the books after closing. Some of these real accounts will become nominal in character, in part or entirely, during the new fiscal period. Because some of these accounts will represent expenses or income in whole or in part in the new period, it is considered desirable to transfer their balances to nominal account titles. This transfer is accomplished by entries which are known as readjusting, reversing, postclosing, or reopening entries.

The process of readjusting the books is desirable but is not imperative, as will be shown in the illustrations which follow.

Readjusting Entry Defined

A readjusting entry is an entry made as of the first day of a new period to transfer an adjustment item from a real to a nominal account title. It is the reverse of an adjusting entry.

Inventory of Merchandise

Inventory of merchandise as defined in Chapter II is the merchandise on hand at a given time. The inventory list should show the composition and value of each class of unsold goods on a given date. It should include all merchandise on hand which was acquired or produced for the purpose of selling even though it is obsolete, shopworn or otherwise damaged. Proper allowance should be made in valuing the substandard goods.

In Chapter XI it was shown that it is necessary at the end of a fiscal period to determine the value of the merchandise on hand. The bases for valuing inventories of merchandise used most commonly by business concerns are

1. Cost.
2. Cost or market whichever is lower.

Cost value means the total of all expenditures made to acquire and put the goods in a salable condition. It includes the invoice price, transportation, handling and storage expenditures.

Market value means* "the current bid price prevailing at the date of the inventory for the particular merchandise in the volume in which usually purchased. . . . " The method of valuing according to *cost or market whichever is the lower* is approved by the Federal Reserve Board and the United States income-tax authorities and is used generally. It is important to understand that this method applies to each item in the inventory list and not to the total, as is indicated in the brief illustration which appears on page 163.

The amount extended for each item to the last column is obtained by using the lower of its cost or market values. The total of the last column is the cost or market whichever is lower value of the inventory, a figure which conservative practice approves. The cost or market method of valuing inventory avoids the anticipation of profits by valuing at cost in cases where the market price is higher. It also avoids the postponement of a loss by valuing at market price when it is lower than

* United States Treasury Department Regulations.

cost. To value unsold goods at a price higher than cost is to anticipate profits. Profits are not made until goods are sold. To value unsold goods at cost when they could be replaced at a lower price is postponing a loss from the period in which the decline in value occurred to the period in which the goods may be sold.

COMPUTATION OF INVENTORY VALUE
Cost or Market Whichever Is the Lower

Item	Count	Cost		Market		Cost or Market Whichever Is Lower	
		Unit	Total	Unit	Total	Unit	Total
Beds—Single	20	$35 00	$ 700 00	$38.00	$ 760.00	$35.00	$ 700 00
Beds—Double	15	45 00	675 00	40.00	600 00	40 00	600 00
Dressing Tables	10	15 00	150 00	12 00	120 00	12.00	120 00
Chairs . .	10	3.00	30 00	2.50	25 00	2 50	25 00
Total . .			$1,555.00		$1,505 00		$1,445 00

The same method of valuing inventory must be used consistently. If it is not, the results of different periods are not determined on the same basis and the possibility of making valuable comparisons between periods is destroyed.

Inventorying merchandise at cost or market whichever is the lower value may result in incorrect figures for cost of goods sold and gross profit on sales in the profit and loss statement. For example, if the inventory of merchandise on hand at the end of a period cost $2,500.00 but on the cost or market whichever is the lower basis is worth only $2,000.00, the incorrect profit and loss statement appears as follows:

Sales.			$50,000.00
Cost of Goods Sold:			
Inventory of Merchandise, January 1, 19__	$ 2,000.00		
Purchases........................	40,000.00	$42,000.00	
Less: Inventory of Merchandise, December 31, 19__		2,000.00	
Cost of Goods Sold...			40,000.00
Gross Profit on Sales...			$10,000.00

The cost of goods sold and the gross profit on sales figures are incorrect because $2,000.00 is not the cost of the inventory on

hand at the end of the period. It is the cost or market whichever is the lower value; $2,500.00 is the cost value of the inventory.

A better way to present this statement is

Sales			$50,000.00
Cost of Goods Sold:			
Inventory of Merchandise, January 1, 19__	$ 2,000.00		
Purchases	40,000.00	$42,000.00	
Less: Inventory of Merchandise, December 31, 19__		2,500.00	
Cost of Goods Sold			39,500.00
Gross Profit on Sales			$10,500.00

The $500.00 decline in inventory value would be deducted as a separate item in the Other Expenses and Losses section of the profit and loss statement. (See Chapter XXVI.)

In Chapter XI $2,500.00 was the value of the inventory of merchandise assumed to be on hand at the end of the period. The following entry was given as the means of registering this inventory value as a separate account on the books:

December 31, 19__		
Inventory of Merchandise, 12/31/19__	2,500.00	
Cost of Goods Sold		2,500.00
To place the new inventory on the books in its own account.		

The Cost of Goods Sold account was cleared in the closing process but the Inventory of Merchandise, December 31, 19__ account is still open. The question now arises, is it desirable to readjust this account or to leave it as it is?

A readjusting entry is not necessary for two reasons

1. The Inventory of Merchandise, December 31, 19__ account will be needed in the preparation of the next statement of profit and loss, as the final inventory of merchandise of a given period becomes the initial inventory of merchandise of the next period.
2. The Inventory of Merchandise, December 31, 19__ account on the books is a constant reminder of the value of the merchandise carried over from the previous period. Unless some error is found, the inventory of merchandise figure should remain unchanged on the books during the following fiscal period.

Inventories of Supplies

Inventories of supplies as defined in Chapter II are supply items such as stationery, twine, wrapping paper, packing boxes, etc., on hand at a given date. A separate inventory record is made of each class of consumable assets.

Since supply items are consumed in a relatively short period of time, it is the usual practice to charge expenditures for them to nominal account titles, such as Office Expenses, Store Expenses, and Postage. At the end of a period each of these accounts is reduced by the value of unconsumed portions.

As was indicated in Chapter XI it is necessary at the end of a fiscal period to make adjusting entries for the supply items on hand. The entry given for the $50.00 assumed inventory of store supplies in that chapter, was

December 31, 19__		
Inventory of Store Expenses	50.00	
Store Expenses		50.00
To record the value of unconsumed store supplies and to modify the Store Expenses account to show the true expense.		

The Store Expenses account was cleared in the closing process but the Inventory of Store Expenses account is still open.

Since all supply items at the time of their purchase are considered to be expense transactions and are charged to nominal account titles, it is desirable from the standpoint of consistency to transfer the inventories of such items to their respective nominal account captions at the beginning of a new period.

In the case just cited this is accomplished by the following readjustment entry:

January 1, 19__		
Stores Expenses	50.00	
Inventory of Store Expenses		50.00
To transfer the balance in the Inventory of Store Expenses account to Store Expenses		

The above entry has another advantage. As expenditures are made for Store Expenses in the new period they are charged to that title. The Store Expenses account will show, therefore, at all times during the period, the aggregate of the amount

carried forward and the new expenditures made under that heading.

In case the above entry is not made as a readjustment, it must be made as an adjustment at the end of the period. The readjustment entry at the beginning of a new period is recommended and is required throughout this text.

Accrued Items

Accruals payable as defined in Chapter II are accumulating debts which arise out of services rendered to the business over a period of time but which debts are not due. No business paper, such as a purchase invoice, a check, or a note exists for the amount of an accrual.

In Chapter XI it was shown that the amount of each accrual payable existing at the end of a period has to be recognized and recorded on the books. The case used for an illustration in that chapter assumed unrecorded salaries owing to employees but not due at the end of the period, in the amount of $300.00.

The adjusting entry given for this fact was

December 31, 19__		
Salaries	300.00	
Accrued Salaries Payable		300.00
To record unpaid salaries.		

The Salary account was cleared in the closing process but the Accrued Salaries Payable account is still open. These accounts appear on the ledger as follows:

Salaries

19__						19__					
Dec.	31	(Total paid)		5,500	00	Dec.	31	(Closing entry)	J	5,800	00
	31	(Adjusting entry)	J	300	00						
				5,800	00					5,800	00

Accrued Salaries Payable

						19__					
						Dec.	31	(Adjusting entry)	J	300	00

The purpose of the Accrued Salaries Payable account is to record the liability under this heading at the end of the period. This liability will be satisfied on the first payday of the new period when salaries are paid. Since salaries paid are charged to the nominal account Salaries, it is desirable that a readjustment entry be made to transfer the balance of Accrued Salaries Payable account to Salaries. This is accomplished by the following entry:

JANUARY 1, 19__		
Accrued Salaries Payable	300.00	
Salaries		300.00
To transfer the balance of Accrued Salaries Payable account to Salaries.		

Let it be assumed that the first payday of the new period is on January 3, 19__, and that the amount of the salaries paid is $375.00.

After the readjusting entry shown above and the cash disbursements entry for the salaries paid on January 3, 19__ are posted to the accounts in the ledger, the nominal and accrued accounts for salaries appear as follows:

Salaries

19__						19__					
Dec.	31	(Total paid)		5,500	00	Dec.	31	(Closing entry)	J	5,800	00
	31	(Adjusting entry)	J	300	00						
				5,800	00					5,800	00
19__						19__					
Jan.	3	(Total paid)	CD	375	00	Jan.	1	(Readjusting entry)	J	300	00

Accrued Salaries Payable

19__						19__					
Jan.	1	(Readjusting entry)	J	300	00	Dec.	31	(Adjusting entry)	J	300	00

The readjustment entry on January 1, 19__ transferred the $300.00 liability from Accrued Salaries Payable to Salaries. The showing of the liability in the nominal account made it possible for the regular salary entry on January 3, 19__ to offset the record of the liability and to register the $75.00 salary expense of the new period.

As all accruals payable are comparable in character to the one used in the illustration, readjusting entries should be made for them.

Accruals receivable are accumulating claims which arise out of services rendered by the business over a period of time but which claims are not due. A particular accrual receivable may be made up of a number of relatively small items which come due at varying times. A good example is Accrued Interest Receivable. This account shows the aggregate of accrued interest on all notes receivable.

As in the case of accruals payable it is desirable to make readjustment entries for accruals receivable. The purpose of an accrual receivable account is to record an asset at the end of the period. That asset will most likely be collected, in whole or in part, during the new period but not as a separate item. It will probably be collected as a part of a receipt from an income item. It is desirable, therefore, that the accrual receivable be shown as of the first day of the new period under a nominal rather than an asset title.

The illustration in Chapter XI of an accrual receivable at the end of a period was accumulated interest on unmatured notes receivable $8.00.

The adjusting entry for it was

December 31, 19__		
Accrued Interest Receivable	8.00	
Interest Earned		8.00
To add to the Interest Earned account the interest income which has not been received, and to set up an additional asset		

The Interest Earned account was cleared in the closing process but the Accrued Interest Receivable account is still open. Since this asset Accrued Interest Receivable will be collected along with interest earned in the new period, the balance of the asset account should be transferred to the Interest Earned title. This is accomplished by the readjusting entry

January 1, 19__		
Interest Earned	8.00	
Accrued Interest Receivable		8.00
To transfer the balance of the Accrued Interest Receivable account to Interest Earned.		

Suppose $48.00 as interest on notes is collected on June 1, 19__ and that this collection includes the $8.00 which was accrued at the end of the previous period.

After the readjusting entry given above and the cash receipts entry on June 1, 19__ are posted to the ledger, the nominal and accrued accounts for interest appear as follows:

Interest Earned

19__						19__					
Dec.	31	(Closing entry)	J	118	00	Dec.	31	(Total received)		110	00
							31	(Adjusting entry)	J	8	00
				118	00					118	00
19__						19__					
Jan.	1	(Readjusting entry)	J	8	00	June	1	(Total received)	CR	48	00

Accrued Interest Receivable

19__						19__					
Dec	31	(Adjusting entry)	J	8	00	Jan.	1	(Readjusting entry)	J	8	00

The $48.00 credit to the Interest Earned account offsets the $8.00 claim for accrued interest carried over from the previous period and registers the receipt of $40.00 for current interest earned.

Deferred Items

Deferred charges are expenditures of one period that are to be charged as expenses to a subsequent period or periods. Illustrations are inventory of store expenses, prepaid insurance, prepaid rent, and prepaid interest.

Inventory of store expenses which was considered earlier in this chapter is an illustration of a deferred charge. In that case the amount of the deferred charge which benefits a subsequent period is represented by the actual inventory of store supply items. With accounts such as Prepaid Insurance and Prepaid Rent, the deferred charge is represented by unexpired services the benefits of which will be received in a subsequent period or periods.

The method of treatment given for inventory of store expenses applies to all deferred charges if the original expenditures are charged to expense account captions. In all such cases it is necessary to adjust the expense account at the end of the period for unconsumed or unexpired amounts. The balance of the inventory or other unexpired deferred charge accounts opened by the adjustment entries should be transferred by readjustment entries to expense account captions as of the first day of the new period.

Not all deferred charge accounts are treated the same as Inventory of Store Expenses. For example, in Chapter XI an illustration of a deferred charge was developed from the following facts:

Prepaid Insurance in the trial balance.............	$500.00
Unexpired insurance, December 31, 19—............	300.00
Cost of expired insurance for the period............	$200.00

The following adjusting entry was made:

December 31, 19—		
Insurance	200.00	
Prepaid Insurance		200.00
To reduce the Prepaid Insurance account by the portion which expired this fiscal period.		

The Insurance account was closed in the process of closing the books but the Prepaid Insurance account is still open with a debit balance of $300.00. It is not necessary to make any readjusting entry for this account. All new expenditures for insurance are charged to Prepaid Insurance. At the close of the next period an adjusting entry similar to the one just given is made for the amount of insurance expired.

Adjusting entries may be more frequent than closing entries. Books are closed ordinarily only once a year, but they may be adjusted semi-annually, quarterly, or monthly, depending on the number of times financial statements are prepared in a fiscal year. Sometimes the adjustments are not made on the books but are made on work sheets from which the statements are prepared.

Suppose monthly statements are prepared for this business where the expired insurance was $200.00 for the year. The monthly adjusting entry under this situation is

January 31, 19—

Insurance	16.67	
Prepaid Insurance		16.67
To reduce the Prepaid Insurance account by the portion expired in the month of January.		

In the illustration the original expenditure was charged to Prepaid Insurance, an asset title. It might have been charged to Insurance, an expense account. Both are mixed accounts. Ordinarily if the expenditure benefits the current fiscal period to a greater extent than a subsequent period or periods, an account with a nominal title is selected. In such cases the books are adjusted for the unexpired part of the account. Conversely, a real account title is used if the greater part of the expenditure benefits a subsequent period or periods. In a case of this kind, which is the one presented by the figures given above, the books are adjusted for the amount which has expired.

Deferred credits, as defined in Chapter II, represent receipts or receivables of one period that will be earnings of a subsequent period or periods. They represent items received or receivable which are not included in income until the period or periods in which earned. They are liabilities which are satisfied usually in services or products.

In Chapter XI the facts used to illustrate this type of adjustment were

Rent Earned account in the trial balance..........	$390.00
Rent collected but unearned in the period..........	30.00
Rent income for the period....................	$360.00

In this illustration rent collections were credited to the income title Rent Earned. It was necessary at the end of the fiscal period to adjust the Rent Earned account for the amount of the rent collected but unearned in the period. This adjustment was accomplished by the entry

December 31, 19—

Rent Earned	30.00	
Rent Collected in Advance		30.00
To reduce the Rent Earned account by the amount collected in advance.		

The Rent Earned account was cleared by the closing of the books, but the Rent Collected in Advance account is still open.

Since the amount of the rent collected in advance will be income in the new period, it is desirable to transfer it to the Rent Earned account. This is accomplished by the readjusting entry

JANUARY 1, 19__		
Rent Collected in Advance	30.00	
Rent Earned		30.00
To transfer the balance of Rent Collected in Advance account to Rent Earned.		

The rent accounts in the ledger now appear as follows:

Rent Earned

19__						19__					
Dec.	31	(Adjusting entry)	J	30	00	Dec.	31	(Total collected)		390	00
	31	(Closing entry)	J	360	00						
				390	00					390	00
						19__					
						Jan.	1	(Readjusting entry)	J	30	00

Rent Collected in Advance

19__						19__					
Jan.	1	(Readjusting entry)	J	30	00	Dec.	31	(Adjusting entry)	J	30	00

The $30.00 rent collected in advance in the past period is an income item in the new period. It is proper, therefore, that it appears as of the first day of the new period under the income account title Rent Earned.

Readjusting entries should be made for all deferred credits if the original collections are credited to an income account title. They are comparable in character to the rent illustration just given.

If the original collections for rent are not credited to the nominal account title Rent Earned but to the liability title Rent Collected in Advance, then the adjusting entry at the end of the period is different and a readjusting entry is not necessary. For example, suppose the rent collected in the past period was credited to the account Rent Collected in Advance. The facts would then be stated

Rent Collected in Advance as shown in the trial balance	$390.00
Unearned rent collected in the period	30.00
Rent earned in the period	$360.00

In this case it is necessary to adjust the books at the end of the period for the amount of rent earned by the following adjusting entry:

December 31, 19__		
Rent Collected in Advance	360.00	
Rent Earned		360.00
To reduce the Rent Collected in Advance account by, and to set up the Rent Earned account for, the amount earned in the period.		

After closing, the accounts involved appear as follows:

Rent Collected in Advance

19__						19__					
Dec.	31	(Adjusting entry)	J	360	00	Dec.	31	(Total collected)		390	00
	31	Balance		30	00						
				390	00					390	00
						19__					
						Dec.	31	Balance		30	00

Rent Earned

19__						19__					
Dec.	31	(Closing entry)	J	360	00	Dec.	31	(Adjustment entry)	J	360	00

The Rent Earned account was closed in the closing process but the Rent Collected in Advance account is still open with a credit balance of $30.00 which is the amount collected in advance. Since, under this plan, new collections are credited to the Rent Collected in Advance account, a readjustment entry is not necessary.

Generalizing from this last illustration it can be stated—readjusting entries are not necessary if the original receipts or receivables are credited to liability titles.

It is correct to credit receipts or receivables for income items not yet earned, either to purely income titles or to deferred credit titles. Thus, in the illustrations just used, the $390.00

rent collected was credited correctly either to Rent Earned or to Rent Collected in Advance. Since the amount of a particular deferred credit at the end of a period is usually smaller than the amount earned by the account out of which it arises, it seems desirable to credit to nominal account titles income items collected in advance. This treatment requires adjustments at the end of the period for the amount of the deferred credits and readjustment entries as of the first day of the new period.

Guiding Principles on Readjustments

1. No readjustments are necessary with respect to
   a. The inventory of merchandise.
   b. Reserves for depreciation.
   c. Reserve for bad debts.
2. So that the customary debits and credits to nominal accounts may be made throughout the period, readjustments are desirable with respect to accruals receivable and accruals payable.
3. Deferred items may or may not need to be readjusted.
   a. If the bookkeeper customarily debits or credits nominal accounts when deferred-item transactions occur, readjusting entries should be made.
   b. If the bookkeeper customarily debits or credits real accounts when deferred-item transactions occur, readjusting entries should not be made.
4. Readjusting entries are made as of the beginning of the period.

The following chronological order of ledger operations must be kept in mind:

a. Recording readjusting entries.
b. Recording the cash paid or liability incurred, or the cash received or receivable.
c. Taking a trial balance.
d. Recording adjusting entries.
e. Recording closing entries.
f. Ruling, totaling, and balancing ledger accounts where necessary.
g. Taking a postclosing trial balance.

QUESTIONS

1. What is a readjusting entry? When is it usually made? Where is it made? Why is it made?

2. *a.* Is a readjusting entry desirable for Inventory of Merchandise? Explain. If desirable, give it.

b. Is a readjusting entry desirable for Inventory of Store Expenses? Explain. If desirable, give it.

3. *a.* Give the adjusting entry necessary at the end of a period for store salaries accrued in the amount of $120.00.

b. Give the readjusting entry, as of the first day of the new period, for the fact in *a.*

4. *a.* Give the adjusting entry necessary at the end of a period for $600.00 of interest accrued on bonds owned.

b. Give the readjusting entry for the fact in *a.*

c. Suppose the readjusting entry requested in *b* was not made, what entry or entries should be made when $3,600.00 cash is received as interest on bonds? The $3,600.00 includes the $600.00 accrued.

5. Suppose most of the insurance policies of a business cover more than a one-year period.

a. When insurance is purchased should it be charged to Insurance or Prepaid Insurance? Why?

b. If the answer given to *a* is Insurance, what adjusting entry is required at the end of a period? What readjusting entry, if any, as of the beginning of the next period?

c. If the answer given to *a* is Prepaid Insurance, what adjusting entry is required at the end of a period? What readjusting entry, if any, as of the beginning of the next period?

6. *a.* What are the most common bases for valuing inventory of merchandise?

b. Does *cost value* include transportation, handling, and storage costs?

c. What do you mean by *cost or market value whichever is lower?* Does this method apply to the total inventory or to each item in the inventory?

7. How can you justify writing down the value of inventory of merchandise items to market values in a declining market and not justify writing them up to market values in a rising market?

8. If inventory of merchandise is valued at cost or market whichever is lower, is the figure obtained for *cost of goods sold* the real cost figure? Is the *gross profit on sales* figure the real gross profit on sales amount? Explain.

9. If the facts are known, is it possible to value inventory of merchandise at cost or market whichever is lower and yet have the cost of goods sold and the gross profit on sales figures correct? How?

CHAPTER XV

BAD DEBTS, DEPRECIATION, OBSOLESCENCE, DEPLETION

In Chapter XI it was stated that the books of an enterprise should be adjusted at the end of a period because of the estimated bad debts and the depreciation of fixed assets. The adjusting entries for these items debited the nominal accounts Bad Debts and Depreciation of Furniture and Fixtures, and credited the real accounts Reserve for Bad Debts and Reserve for Depreciation of Furniture and Fixtures.

The nominal accounts opened by these adjustments are closed in the process of closing the books. The real account titles are open after closing. These valuation reserve accounts opened at the end of a period are created to offset in part the asset accounts they represent. They exist in lieu of credits to the asset accounts and their balances should not be disturbed, therefore, as of the first day of the new period. Readjustment entries are not necessary since reserve accounts do not become income or expense items of subsequent periods.

BAD DEBTS

The accrual basis of accounting makes necessary the adjustment of the records to include all items that affect income and expenses whether or not cash has been received or paid. Businessmen who sell on a credit basis learn that it is almost impossible to collect all of their receivables because certain claims on customers prove to be worthless in whole or in part.

Purposes of the Reserve for Bad Debts

In Chapter II current assets were defined as cash and other assets that will be converted into cash through the normal operation of the business, usually in less than a year. The current asset section of the balance sheet will not be correct unless

the accounts and notes receivable are reduced by the anticipated amount of uncollectible items.

The Reserve for Bad Debts account is a valuation account set up for the purpose of modifying the value shown in Accounts and Notes Receivable. It normally has a credit balance but it is not a liability. Since it is impossible to forecast the particular receivable which will prove to be the source of a loss, the Reserve for Bad Debts account is credited in the adjusting entry.

In Chapter XI the estimated bad debts was considered to be equal to 1 per cent of the $50,000.00 of net sales for the period. The adjusting entry was

December 31, 19__		
Bad Debts	500.00	
Reserve for Bad Debts		500.00
To adjust the books by the amount of estimated uncollectible claims, 1 per cent of net sales of $50,000.00.		

What constitutes a reasonable estimate for uncollectible claims varies between classes of businesses and with changes in the general condition of business prosperity. Establishments in the same line of business may not have the same relative losses from bad debts because credit investigations and collection policies differ. The length of the period for which credit is extended is another factor causing differences between businesses. Long credit periods are apt to result in greater bad debt losses than shorter credit periods. For example, installment houses may have greater losses from bad debts than enterprises which sell the same kind of goods on shorter term credit.

Process of Estimating the Amount of Bad Debts

The chief difficulty in providing for uncollectible claims is the determination of a reasonable estimate.

Four methods of estimating are of sufficient importance to warrant consideration:

1. *Percentage of Net Sales.* The percentage of net sales method estimates bad debts as a percentage of the net sales for the period. The percentage figure is obtained by comparing the actual bad debts of past periods with the net sales of the same

Time	Net Sales	Net Credit Sales	Accounts Receivable (Trade Debtors)	Accounts Determined Worthless	Bad Debts Recovered
Five years ago	$ 150,000.00	$120,000.00	$13,000 00	$ 750.00	-0-
Four years ago	170,000.00	140,000 00	12,000 00	850 00	$ 50 00
Three years ago	200,000.00	160,000.00	16,000.00	850.00	60 00
Two years ago	240,000 00	190,000.00	20,000 00	950.00	50 00
Last year	270,000 00	210,000.00	21,000 00	900 00	40 00
Totals	$1,030,000.00	$820,000 00	$82,000 00	$4,300 00	$200.00

The history of the last five years shows that approximately four-tenths of 1 per cent of net sales, one-half of 1 per cent of net credit sales and 5 per cent of accounts receivable proved to be bad. The computation of these percentages follows:

Bad Debts to Net Sales	Bad Debts to Net Credit Sales	Bad Debts to Accounts Receivable
$\frac{\$4{,}300.00 - \$200.00}{\$1{,}030{,}000.00} = .00398$	$\frac{\$4{,}300.00 - \$200.00}{\$820{,}000.00} = .005$	$\frac{\$4{,}300.00 - \$200\ 00}{\$82{,}000.00} = .05$

Unless the general condition of business prosperity in the current period differs materially from that of the previous five years, it is reasonable to expect that the past experience with respect to bad debts will continue. These percentages when applied to the current figures show the following results:

Net Sales.................	$250,000.00 × .004	=	$1,000.00
Net Credit Sales......... .	200,000.00 × .005	=	1,000.00
Accounts Receivable.......	20,000.00 × .05	=	1,000.00

These calculations are approximately as they should be. As only a certain proportion of the uncollected customers' accounts go bad, the amount to be credited to the Reserve for Bad Debts should be approximately the same, regardless of the method used.

The application of rates determined by practical experience has to be modified sometimes because of external or internal factors, or both. The particular level of general business conditions, a change in sales, credit or collection policies by the enterprise or a change in its personnel or internal organization

may be sufficient cause to justify the alteration of a rate based on past experience. For example, the percentage used at the end of a particular year may be less than the past history indicates to be necessary, if

1. A period of prosperity is starting after a long period of depression.
2. An efficient credit department is installed and the extension of credit is guarded carefully.
3. A collection department is provided and is efficiently managed.

Writing Off Bad Accounts

After all ordinary means have been exhausted and further attempts to collect a balance due would entail an expense in excess of the amount involved, the receivable should be written off the books. There is no excuse for continuing such an account as an asset.

If a set of books is kept on a cash basis no deduction may be made from income for bad debts since income is not recorded on the books until collected. For example, if a doctor does not place his fees on his books as income until they are collected, he cannot show any deduction from his income for the amount he estimates he will be unable to collect.

In an enterprise where provision for future losses of existing accounts and notes receivable has not been made, the Reserve for Bad Debts account does not exist. In such a case if a particular loss is recognized the amount of the account or note is charged to Bad Debts. This method treats bad debts as a loss of the year in which it is determined that there is no probability of collection, regardless of the year of the sale. On the books of such an enterprise the Bad Debts account will show the amount of losses actually sustained during that period.

If a Reserve for Bad Debts account is provided for doubtful claims on customers, it should be debited with all or any part of an uncollected account as soon as the attending circumstances indicate that it is worthless. The purpose of the reserve for bad debts is to charge the period in which the credit arose rather than the period in which the account proves to be uncollectible.

Assume the following facts:

1. On December 24 last year $600.00 worth of merchandise was sold to Frank Driscoll on credit.
2. On December 31 the trial balance showed
   a. Sales (including Driscoll's) $50,000.00
   b. Accounts Receivable 8,000.00
3. On October 12 of the current year a check for $240.00 was received for the Driscoll account. It represented a settlement on the basis of forty cents on the dollar. As Driscoll was insolvent this was all that could be collected.

The entries for these facts, if there is no Reserve for Bad Debts account, and if there is such an account, are as follows:

Date	If No Reserve			If Reserve Had Been Created Equal to 1 Per Cent of Sales		
Dec. 31 last year	No Entry			Bad Debts	500 00	
				Reserve for Bad Debts		500.00
				To adjust books by 1 per cent of Sales estimated to be uncollectible.		
				Profit and Loss	500.00	
				Bad Debts		500.00
				To close the Bad Debts account to Profit and Loss.		
Oct. 12 this year	Cash	240 00		Cash	240.00	
	Bad Debts	360.00		Reserve for Bad Debts	360.00	
	Frank Driscoll		600.00	Frank Driscoll		600 00
	Account settled on basis of $.40 on the $1.00. Driscoll insolvent.			Account settled on basis of $.40 on the $1.00. Driscoll insolvent.		

The following forms summarize the debits and credits to the accounts Bad Debts and Reserve for Bad Debts in an enterprise which uses the reserve account.

Bad Debts

Is debited in the adjusting entry with the amount of bad debts expense of the current fiscal period.	Is credited in the closing entry with an amount equal to the debit.

Reserve for Bad Debts

Is debited with all losses arising from bad debts.	Is credited in the adjusting entry with the amount of bad debts expense of the current fiscal period.

In a fiscal period of twelve months the losses of accounts and notes tend to close the Reserve for Bad Debts account. If it has a debit balance at the end of a period, it represents an excess of actual over estimated losses; if a credit balance, it represents an excess of estimated over actual losses.

Recovery of Former Bad Debts

It sometimes happens that an account or note which was written off as bad proves to be collectible. In order to have the customer's account show a complete history of all the transactions with him, it is recommended that the collection of the debt be handled through his account. To illustrate, assume that Driscoll paid the balance of his account two years after it was charged off. The following entries are necessary whether a reserve account was or was not used at the time Driscoll's unpaid balance was considered lost:

Frank Driscoll	360.00	
Bad Debts Recovered		360.00
To charge Driscoll with amount previously charged off as bad.		
Cash	360.00	
Frank Driscoll		360.00
To credit Frank Driscoll with check to cover balance charged off, October 12, 19__.		

At the end of the period the Bad Debts Recovered account may be treated as any other credit nominal account and closed as a gain of the period to the Profit and Loss account, and this treatment is recommended. It may be credited, however, directly to the capital account of the owner without going through the intermediate Profit and Loss account. This latter treatment arises out of the viewpoint that the item is a very special gain which increases net worth because of excessive charges to Bad Debts in prior periods. Under this plan, the Bad Debts Recovered account is not shown as a part of the net profit for the period.

DEPRECIATION

In preceding chapters it was demonstrated that expenditures for items consumed had to be considered expenses of the period or periods in which used. Supplies were charged to the period in which they were consumed. Insurance which expired in a period was considered an operating expense of the period. In the same way expenditures for most fixed assets must be apportioned over the periods which receive the benefits from those assets. The expenditure for delivery equipment, for example, is not a complete loss in the period when it is disposed of. A portion of its value is consumed and is an expense to each period of its useful life. The same is true of the cost of buildings, furniture and fixtures and other fixed assets. Because fixed assets are usually long lived the periodic decline in value should not be ignored.

Definition

Depreciation may be defined as a cost or expense arising out of the continuous lessening in the value of fixed assets caused chiefly by wear and tear, the effect of the elements, and gradual obsolescence.

Several parts of this definition need special emphasis:

1. *Continuous Lessening.* Depreciation begins as soon as the asset is ready for use and continues until it is disposed of. It will not depreciate so rapidly if kept in good repair but repairs will not arrest the continuous lessening of its worth. Sudden declines in value are not chargeable to depreciation. These would include losses by fire, storm, theft, floods, earthquakes, and other losses that come suddenly and unexpectedly. The gradual and continuous lessening in value is the very essence of depreciation.

2. *Value.* Value means cost value and must not be confused with exchange or replacement values. If an asset has rendered service to the business equal to one-tenth of the possible service that it is capable of rendering, it has depreciated regardless of the fact that its exchange value may have increased. Fluctuations in the market value of fixed assets usually are ignored.

3. *Fixed Assets.* Depreciation is limited to fixed assets. It does not apply to current assets, *i.e.*, merchandise on hand is inventoried and valued as explained previously.

Not all fixed assets are subject to depreciation. For example, it does not apply to land used or held for building or storage purposes, nor to goodwill, as they are not affected by the chief causes of depreciation. Some fixed assets like dishes in a restaurant, electric insulators, and certain small tools are usually 100 per cent useful until broken. The decline in the value of assets of this kind is measured ordinarily by subtracting an appraised inventory value at the end of the period from the balance of the ledger account. The difference represents the cost of the asset chargeable to the current period.

4. *Wear and Tear, Effect of the Elements, and Gradual Obsolescence.* The most important causes of depreciation are wear and tear, effect of the elements, and gradual obsolescence although they are not the only ones. Wear and tear refers to the shrinkage in value caused by the use of an asset. The effect of the elements refers to the influence of climatic conditions. Climatic conditions cause certain assets to decay or corrode and therefore contribute to the lessening in their values.

Gradual obsolescence refers to the lessened value of fixed assets due to successive improvements in the arts which make it unprofitable to use some assets until exhausted. For example, the experience of an enterprise may show that certain assets which have physical lives of thirty years are discarded in eighteen years because it is no longer profitable to use them. In the course of eighteen years so many improvements and changes are available in asset models and productive methods that the assets owned are discarded twelve years before the end of their physical lives. (See section on Obsolescence.)

Some intangible assets such as patents, copyrights, licenses, and leaseholds decline in value because of the passage of time. Their efficient lives are limited by law or contract.

The Problem of Depreciation

It is recognized generally that any tangible fixed asset, except land used or held for building or storage purposes, depreciates and that the amount of the periodic depreciation should be charged to operations. The amount to be charged and the method to be used present problems on which there is disagreement. To determine the periodic amount of depreciation on an asset, certain fundamental factors should be considered.

Factors Influencing the Amount of Periodic Depreciation

To determine the amount of depreciation which should be written off each fiscal period, three fundamental factors must be considered:

1. *Cost.* Cost includes the purchase price or construction cost of the asset, transportation, cost of installation, repairs at the time of purchase to a property acquired in a partially worn-out condition, and in the case of property under construction, taxes, insurance, and interest.

2. *Estimated Useful Life.* The estimated useful life of an asset is the number of fiscal periods it is expected to be used economically. The useful life does not start until the asset is in position ready for use and continues until it is traded in, scrapped, sold, exchanged, stolen, or wrecked.

To forecast this useful life it is necessary to learn about the conditions under which the asset will be used, the effect of the climate on it, and the policy of the owner with respect to repairs and maintenance. It is difficult to forecast variations in use caused by sudden obsolescence, inadequacy, and periods of depression and prosperity.

Inadequacy refers to the inability of an asset to satisfy the increasing requirements which arise out of changed market conditions. For instance, the demand for the product of a machine may increase to an extent that it is economically necessary to discard the machine and replace it with a model of greater capacity.

In the case of improvements made to leased property the estimated useful life is the number of years remaining in the lease provided the useful life of the improvements exceeds that of the lease.

Two assets which are exactly alike may not have the same useful life, particularly if used under different conditions. Metal is affected sooner if near salt water; delivery trucks wear out faster in hilly than in flat country; buildings used as stores do not depreciate so rapidly as those of similar construction which house machinery; assets not in use often deteriorate more rapidly than if used, because of the action of the elements; assets in use in a plant operating many hours each day have shorter lives than those in a plant which works fewer hours each day; and those operated by careless employees do not have so long a useful life as those run by careful operators.

3. *Estimated Salvage Value.* The estimated salvage value is the amount expected to be realized at the time the asset is junked or traded in. Salvage values are so low, usually, that this factor frequently is not considered.

The difference between the cost and the estimated salvage value is the amount of depreciation to be recovered during the useful life of the asset.

Computation of the Depreciation Charge

The amount of depreciation is calculated usually on a time basis. There are other bases only one of which—the performance basis—will be illustrated.

The following facts are used to determine the amount of depreciation under each method:

1. Cost of machine on January 1, 19__, $10,000.00.
2. Estimated useful life, ten years.
3. Estimated salvage value, $500.00.
4. Estimated units of output, 100,000.
5. Units of output first twelve months, 12,000.

Straight-line Method

The straight-line method charges depreciation to operations in equal periodic amounts over the estimated useful life of the property without regard to its performance. It is the method in most common use because it does not involve extensive mathematical computations and it effectively accomplishes its purpose. Time is an important element in the straight-line method. There are other methods in which time is an essential factor but relatively their use is so infrequent that they will not be explained.

Over a period of ten years, the depreciation charged off on the machine in the illustration should equal $10,000.00 minus $500.00 or $9,500.00. If the books are adjusted annually then $950.00 or 9½ per cent of cost will depreciate this asset during its estimated useful life.

The following formulae indicate the method in summary form:

$$\text{Periodic Depreciation} = \frac{\text{Cost} - \text{Salvage}}{\text{Estimated Useful Life}}$$

$$\text{Periodic Rate} = \frac{\text{Periodic Depreciation}}{\text{Cost}}$$

The following table shows how the straight-line method affects the operating costs and the asset values:

Period	Periodic Depreciation	Accumulated Reserve	Book Value
1	$ 950.00	$ 950.00	$9,050.00
2	950.00	1,900.00	8,100.00
3	950.00	2,850.00	7,150.00
4	950.00	3,800.00	6,200.00
5	950.00	4,750.00	5,250.00
6	950.00	5,700.00	4,300.00
7	950.00	6,650.00	3,350.00
8	950.00	7,600.00	2,400.00
9	950.00	8,550.00	1,450.00
10	950.00	9,500.00	500.00
	$9,500.00		

As indicated in the table the periodic charge to Depreciation is $950.00. The Reserve for Depreciation account increases by the same amount each period. At the end of the estimated life of the asset the difference between the cost of the asset as shown in the asset account and the allowance for depreciation as shown in the Reserve for Depreciation account is the estimated salvage value of the asset.

The *book value* of an asset is the value at which it is shown on the books. In the illustration above it is the excess of the amount shown in the asset account over its related valuation reserve account.

The straight-line method is also called the *fixed percentage of cost method* as it is a plan under which a constant percentage of the cost of an asset is written off each period.

Unit of Performance Method

The unit of performance method writes off the cost of an asset in periodic amounts which vary according to performance. The time element is not considered. Depreciation is charged to periods in proportion to the use which has been made of the asset.

In the case of a machine each unit which is produced by the asset is charged with its proportionate share of the estimated depreciation of the asset. If, in the illustration, the machine is capable of producing 100,000 units then each unit is charged

with .095. In the first year if the machine has an output of 12,000 units the depreciation charge is \$1,140.00; in the second year if the output is 15,000 units, the depreciation charge is \$1,425.00.

Under this method

$$\text{Periodic Depreciation} = \frac{\text{Cost} - \text{Salvage Value}}{\text{Possible Performance Units}} \times \text{Units of Performance per Period}$$

Periodic Treatment on the Books

At the end of a fiscal period the values of the depreciable assets on the books should be adjusted for depreciation by one of the following two methods:

1. *Write Down the Assets.* To write down an asset the adjusting entry debits a depreciation or other expense account and credits the asset account, thus: Assume tools owned at a cost of \$2,000.00. At the end of the first yearly period the inventory of tools is appraised at \$1,600.00. Some of the original tools have been broken, stolen, or discarded; others are badly worn. These facts would be shown in the accounts as follows:

Tools

19— Jan.	1	(Total owned)		2,000	00					

DECEMBER 31, 19—

Depreciation of Tools or Tool Expense	400.00	
Tools		400.00
To adjust the books for the amount of depreciation of tools.		

DECEMBER 31, 19—

Profit and Loss	400.00	
Depreciation of Tools or Tool Expense		400.00

Depreciation of Tools

19— Dec.	31	(Adjusting entry)	J	400	00	19— Dec.	31	(Closing entry)	J	400	00

The Tools account appears as follows:

Tools

19__ Jan.	1	(Total owned)		2,000	00	19__ Dec.	31	(Adjusting entry)	J	400	00

The account Tools shows a debit balance of $1,600.00 which is the estimated value of the tools owned at the end of the period and the figure which appears in the balance sheet.

The method of writing down the value of the asset directly may be followed for all depreciable assets but its use is limited usually to depreciable assets with comparatively short lives such as patterns and small tools.

2. *Create Specific Reserve Accounts.* The method of creating specific reserve accounts provides a special reserve account for each class of fixed assets subject to depreciation. In the case of long-lived assets, it is desirable to show the investment in each class of assets in separate asset accounts and the accumulated shrinkage in their values caused by depreciation in separate reserve accounts appropriately titled. In this way a more complete history of the assets is available readily.

The entry necessary to adjust the books at the end of each fiscal period debits the proper depreciation account and credits a specific reserve account for each class of fixed assets.

The accounts for the figures shown in the table on page 187 appear as follows:

Machinery

19__ Jan.	1	(Original Cost)		10,000	00						

Depreciation of Machinery

19__ Dec.	31	(Adjusting entry 1st yr.)	J	950	00	19__ Dec.	31	(Closing entry 1st yr.)	J	950	00
19__ Dec.	31	(" " 2d yr.)	J	950	00	19__ Dec.	31	(" " 2d yr.)	J	950	00
19__ Dec.	31	(" " 3d yr.)	J	950	00	19__ Dec.	31	(" " 3d yr.)	J	950	00
19__ Dec.	31	(" " 4th yr.)	J	950	00	19__ Dec.	31	(" " 4th yr.)	J	950	00
19__ Dec.	31	(" " 5th yr.)	J	950	00	19__ Dec.	31	(" " 5th yr.)	J	950	00
19__ Dec.	31	(" " 6th yr.)	J	950	00	19__ Dec.	31	(" " 6th yr.)	J	950	00
19__ Dec.	31	(" " 7th yr.)	J	950	00	19__ Dec.	31	(" " 7th yr.)	J	950	00
19__ Dec.	31	(" " 8th yr.)	J	950	00	19__ Dec.	31	(" " 8th yr.)	J	950	00
19__ Dec.	31	(" " 9th yr.)	J	950	00	19__ Dec.	31	(" " 9th yr.)	J	950	00
19__ Dec.	31	(" " 10th yr.)	J	950	00	19__ Dec.	31	(" " 10th yr.)	J	950	00

Reserve for Depreciation of Machinery

						19__ Dec.	31	(Adjusting entry 1st yr.)	J	950	00
						19__ Dec.	31	(" " 2d yr.)	J	950	00
						19__ Dec.	31	(" " 3d yr.)	J	950	00
						19__ Dec.	31	(" " 4th yr)	J	950	00
						19__ Dec.	31	(" " 5th yr.)	J	950	00
						19__ Dec.	31	(" " 6th yr.)	J	950	00
						19__ Dec.	31	(" " 7th yr.)	J	950	00
						19__ Dec.	31	(" " 8th yr.)	J	950	00
						19__ Dec.	31	(" " 9th yr.)	J	950	00
						19__ Dec.	31	(" " 10th yr.)	J	950	00

The Depreciation of Machinery account is closed each year. At the end of the estimated useful life of the machine, the difference between the asset account and its reserve account is the estimated scrap value of the machine, $500.00.

Reserve for Depreciation Account

A depreciation reserve account is a valuation account which shows the amount by which an asset has been revalued because of depreciation. It has a credit balance and exists in lieu of credits to its related asset. It does not represent a fund which will provide the cash with which to acquire another asset at the time the existing one is replaced. A fund account is an asset account; it represents cash, securities, or other assets set aside for a specific purpose. (See Chapter XXVI.)

Disposal of a Fixed Asset

A depreciable fixed asset although kept in ordinary repair must be discarded eventually. Regardless of the cause of the disposal, certain adjustments should be made in the records:

1. Depreciation should be provided for the current period to the date of disposal.
2. The asset account should be relieved of the cost value of the discarded asset.
3. The reserve account should be relieved of that part of its balance which applies to the discarded asset.
4. If the asset is sold, traded, or discarded because no longer serviceable and the amount realized differs from the book value, the difference should be recorded in an account which may be titled Profit through Disposal of Fixed Assets, or Loss through Disposal of Fixed Assets.
5. If the asset is abandoned because of an accident the uninsured loss, if any, should be transferred to an account descriptive of the loss, such as Fire Loss, or Loss from Collision.

For purposes of illustration the example stated under Computation of the Depreciation Charge on page 186 is continued and appropriate journal entries are given:

1. After ten years of serviceable life the machine is sold for cash on January 1, 19__ for its book value, $500.00.

January 1, 19__

Cash	500.00	
Reserve for Depreciation of Machinery	9,500.00	
Machinery		10,000.00
To record the sale at its book value of machinery purchased, January 1, 19__		

2. Suppose the machine is sold for $2,500.00 cash after eight years of serviceable life.

JANUARY 1, 19__

Cash	2,500.00	
Reserve for Depreciation of Machinery	7,600.00	
Machinery		10,000.00
Profit through Disposal of Fixed Assets		100.00
To record the sale for $100.00 more than its book value, of machinery purchased, January 1, 19__.		

3. Suppose the machine is sold for $2,000.00 cash at the end of eight years of serviceable life.

JANUARY 1, 19__

Cash	2,000.00	
Reserve for Depreciation of Machinery	7,600.00	
Loss through Disposal of Fixed Assets	400.00	
Machinery		10,000.00
To record the sale for $400.00 less than its book value, of machinery purchased, January 1, 19__.		

4. Suppose the machine is traded in at the end of eight years of serviceable life for another machine priced at $14,000.00. The allowance on the old machine is $2,500.00; the balance is paid in cash.

JANUARY 1, 19__

Machinery	14,000.00	
Accounts Payable		14,000.00
To record the purchase of the new machine.		
Accounts Payable	2,500.00	
Reserve for Depreciation of Machinery	7,600.00	
Machinery		10,000.00
Profit through Disposal of Fixed Assets		100.00
To record the transfer of the old machine in part payment of the new machine.		
Accounts Payable	11,500.00	
Cash		11,500.00
To record the check given in full of account.		

A profit or a loss account which arises out of the disposal of a fixed asset may be treated as any other nominal account and closed to the Profit and Loss account. This treatment is recommended. It may be closed, however, directly to the account of the owner on the theory that this special profit or loss arises from excessive or insufficient depreciation charges in prior periods. In either case, it must be considered for income-tax purposes.

The Effect of Capital Expenditures on Fixed Assets

The cost of fixed assets is increased by subsequent capital expenditures, which may necessitate a change in the estimated scrap value or a change in the estimated life of the asset. When the cost, the estimated scrap value, or the estimated life of an asset is changed, the periodic depreciation charge must be changed.

The following procedure may be used to determine the new figure for depreciation:

1. Compute the book value of the asset to the effective date of the change.
2. Add any capital expenditure.
3. Deduct the newly estimated scrap value.
4. Divide by the newly estimated life.

Assume that:

January 1, 19A, a building was purchased for $35,000.00.
January 1, 19F, an addition that cost $4,000.00 was made to the building, but it did not change the estimated useful life of 25 years nor the estimated scrap value of $1,000.00.
The annual depreciation from January 1, 19A to December 31, 19E was $1,360.00.

January 1, 19A cost	$35,000.00
Depreciation from January 1, 19A to December 31, 19E	6,800.00
Book value December 31, 19E	$28,200.00
January 1, 19F capital expenditure	4,000.00
Book value January 1, 19F	$32,200.00
Estimated scrap value as redetermined January 1, 19F	1,000.00
Depreciation to be recovered after January 1, 19F	$31,200.00
Annual depreciation on an estimated life of 20 years	$ 1,560.00

OBSOLESCENCE

Some assets are discarded before they are worn out because of changed conditions, the most important cause of which is obsolescence.

Definition

Obsolescence may be defined as the gradual or the sudden reduction in the value of a fixed asset prior to the end of its normal useful physical life caused by improvements in the arts, changed economic conditions, or legislation.

Provision for Gradual Obsolescence

The gradual reduction in the value of a fixed asset caused by obsolescence should be included in the depreciation charge, if experience makes it possible to forecast this factor with a reasonable degree of certainty.

Provision for Sudden Obsolescence

In the case of a machine, sudden obsolescence may result from the development of a new machine which makes the continued use of the old machine economically unprofitable. Sudden obsolescence results not only from inventions and other improvements in the arts, but from changed economic conditions and legislation. A change in public demand may stop the orders for the merchandise produced by certain equipment. An example of legislative obsolescence was the effect of prohibition laws on the value of brewery equipment. Sudden obsolescence ends the useful life of an asset and causes its value to decline completely or to a scrap value.

Provision may be made for a future possible loss from sudden obsolescence but, if it is, such provision is not considered to be one of the operating expenses of a business unless the loss is rather definitely predictable. An amount is not included in the periodic depreciation charge for sudden obsolescence. If provision is made, it is accomplished by keeping in the business a share of the periodic profits with an appropriate record of the particular purpose for which such provision is made. Further consideration is given the subject of contingency losses in Chapters XXV and XXVI.

If an asset is discarded because it is obsolete, the difference between the realized value, if any, and the book value of the asset is charged to an account which may be titled Loss through Obsolescence or Loss through Disposal of Fixed Assets. The Loss through Obsolescence or Loss through Disposal of Fixed Assets account is closed to the Profit and Loss account, or directly to the account of the owner as a very special loss which has no relation to the regular profit and loss items, preferably to Profit and Loss.

DEPLETION

The provision for depreciation is an attempt to safeguard the capital of an enterprise. If depreciation is ignored the costs of operation are understated and net profits and net worth are overstated. If profits are withdrawn in a case where depreciation is inadequately provided for, such withdrawals may include some capital.

A further attempt to safeguard the capital of an enterprise is necessary if the fixed assets include any natural resources which are being exhausted as the result of operations.

Depletion Defined

Depletion is the lessening in the value of a natural resource caused by the extraction or use of its product.

Fixed assets subject to depletion are known as wasting assets. Examples are lands which contain natural deposits of metals, coal, oil, gas, clay, asbestos, cement rock, salt, sand, and slate. In each case the removal of a part of the asset results in a reduction in its value. This lessening in the value of the wasting asset should be charged to the cost of production.

The discussion in the following paragraphs is limited to minerals.

Factors Influencing the Amount of Periodic Depletion

To determine the amount of the periodic depletion charge, four factors must be considered:

1. *Cost.* If the property is acquired by purchase the amount to be absorbed through depletion charges is the price paid for the entire property less the value of any machinery, equipment, or surface rights acquired.

2. *Residual Value.* The surface of many natural-resource properties may be used for other than extractive purposes even after all of the recoverable units are removed. If the property has a residual value it should be subtracted from the cost to determine the total amount of depletion to be recovered.

3. *Estimated Units Recoverable.* Not all of a wasting asset may be removed economically. Certain coal deposits are not large enough to make it worth while to continue to mine them. By estimated units recoverable is meant the number of units of the product which it is expected may be removed profitably. The units may be expressed as tons, pounds, barrels, cubic feet, or other measure.

4. *Units Recovered.* The total number of units recovered refers to those extracted in any given length of time.

Computation of the Depletion Charge

The amount to be charged in any one period because of depletion is found by determining first the proportionate amount of the investment which should be recovered for each unit and multiplying this figure by the number of units removed in the period.

The following formulae indicate the procedure:

$$\text{Unit Depletion Charge} = \frac{\text{Cost} - \text{Residual Value}}{\text{Estimated Units Recoverable}}$$

$$\text{Periodic Depletion Charge} = \text{Unit Depletion Charge} \times \text{Units Recovered in the Period}$$

Assume the following facts:

1. Cost of ore land, $1,000,000.00.
2. 250,000 tons estimated to be recoverable.
3. 30,000 tons removed in the first year.
4. No additional capital expenditures.
5. No estimated residual value.

$$\frac{\$1{,}000{,}000.00}{250{,}000} = \$4.00,\ \text{the depletion charge on each ton removed.}$$

$4.00 × 30,000 = $120,000.00, the depletion charge for the twelve months' period.

Treatment on the Books

Each fiscal period an adjusting entry is made which charges Depletion with the amount applicable to the period and credits either the property account or a Reserve for Depletion account. The latter is preferred for the same reasons given for the use of depreciation reserve accounts.

If the Reserve for Depletion account is used and the original estimates have been correct, by the time the property is exhausted the aggregate of the periodic credits to the reserve account should equal cost minus residual value. The Reserve for Depletion is another valuation reserve account. It should be shown on a balance sheet as a subtraction from the property account.

QUESTIONS

1. What kind of account is Reserve for Bad Debts? What is its purpose? What kind of balance does it have normally? What items are charged to it?
2. Name some factors which would cause the relative losses from bad debts to vary between different enterprises.
3. The amount of estimated bad debts may be determined as a percentage of net sales or a percentage of net credit sales. As between these two plans, which would you favor and why?
4. Can you give any plans other than those mentioned in question 3 for determining the amount of estimated bad debts?
5. If the books are adjusted monthly, which plans for estimating bad debts are the most satisfactory and why?
6. Should the amounts of estimated bad debts, under the various plans referred to above, approximate each other? Why?
7. When should a particular account receivable be written off against the Reserve for Bad Debts account?
8. In what period is a bad debt considered an expense, if a Reserve for Bad Debts account is provided? If a Reserve for Bad Debts account is not provided?
9. If an attorney at law does not count his fees as income until they are collected in cash, can he claim any expense for bad debts? Explain.
10. Suppose the account of John Smith, a customer with a debit balance of $100.00 carried over from last year, is written off to the Reserve for Bad Debts account.
    a. What effect would that write-off have on the net profit or loss of the current year? Explain.

b. Suppose that two years later John Smith pays the debt. What entry or entries should be made?

11. *a.* What is *depreciation?*
b. What are the causes of depreciation?
c. Give some illustrations of depreciation caused by wear and tear.
d. Give some illustrations of depreciation caused by the elements.
e. Give some illustrations of depreciation caused by gradual obsolescence.
f. May depreciation be prevented by adequate repairs?

12. *a.* Why is depreciation limited to fixed assets?
b. Can you give an illustration of a fixed asset which does not depreciate?
c. Can you name some assets which decline in value because of the mere passage of time?

13. *a.* Name the three factors which must be considered in determining the periodic amount of depreciation for an asset.
b. What do you mean by the *cost* of an asset? Would cost include freight, customs duty if imported, and installation expenses?
c. In determining the estimated useful life of an asset, what factors must be considered?
d. What is meant by *estimated salvage value?*

14. Would it be fair to state that all identical automobile trucks in the United States were depreciating at the same rate? Explain.

15. *a.* Explain the plan of depreciating an automobile truck on the *straight-line method.*
b. Explain the method of depreciating an automobile truck on *a performance basis.*

16. "A factory which is closed down for a year suffers no depreciation." Do you agree with that statement? Explain.

17. *a.* Would there be any error of principle involved in a depreciation entry which debited depreciation of the asset and credited the asset?
b. Is the method of *a* sometimes used for certain assets? For example?
c. Is the method suggested by *a* the customary plan for recording depreciation? What is the customary entry?

18. *a.* What is a *reserve for depreciation* account?
b. What kind of balance does it have?
c. Is it a liability? An income?
d. How and where is it shown on a balance sheet?
e. When is it debited?

19. Suppose an asset appeared on the books with a debit balance of $1,000.00, its particular reserve for depreciation account with a credit balance of $800.00.

a. What was the cost of the asset?
b. What is the book value of the asset?
c. What entry should be made, if the asset is discarded as of no value?
d. What entry should be made, if the asset were sold for $125.00 cash?
e. What entry should be made, if the asset were sold for $250.00 cash?

20. If any of the following assets decline in value, should the decline be charged to depreciation? Explain in each case.
a. Land used for storage space by a business.
b. Secondhand automobiles held by a dealer.
c. Stocks owned and listed on the New York Stock Exchange.
d. Salable goods on the shelves of a merchant's store.
e. Delivery equipment used by a business.

21. Does the creation of a reserve for depreciation account reduce the amount of cash available for the current needs of the business? Explain.

22. The owner of a business failed to depreciate his assets because he felt the value of his business land was increasing fast enough to offset depreciation on his other assets. Discuss the merits of this contention.

23. Is there any difference between a *reserve account* and a *fund?* Explain.

24. Discuss the proposition, whether the account Loss through Disposal of Fixed Assets should be closed to Profit and Loss or to the account of the owner of the enterprise.

25. What kind of obsolescence may be treated as one of the causes of depreciation? What kind may not? Give examples of both kinds.

26. What is the effect on the net profit for a period and the net worth of an enterprise:
a. If depreciation is overlooked?
b. If excess depreciation is provided?
c. If depreciation is undercalculated?

27. *a.* What is depletion?
b. Fixed assets subject to depletion are known as what kind of assets?
c. What are the factors which influence the periodic amount of depletion?
d. Give the debit and the credit accounts of a periodic adjustment for depletion.

CHAPTER XVI

BUSINESS PAPERS AND PRACTICES

Practically all business transactions are represented by business papers. These papers are evidences of the transactions and facilitate their recording. It is desirable, therefore, that consideration be given to those papers in most general use.

PROMISSORY NOTES

Definition

As defined by the Uniform Negotiable Instrument Act, "A negotiable promissory note, within the meaning of this act, is an unconditional promise, in writing, made by one person to another, signed by the maker, engaging to pay on demand or at a fixed or determinable future time, a sum certain in money, to order or bearer."

Negotiable means that legal title to the instrument can be transferred from one party to another by delivery in the case of an instrument payable to bearer, and by indorsement and delivery in the case of an instrument payable to order. Negotiability is indicated by such words as *to the order of* or *to bearer.*

Unconditional promise signifies that the promissory note contains an unqualified promise to pay.

In writing indicates that the promise is not an oral one and includes printing, typing, and handwriting.

A *person* includes a body of persons or a corporation.

Sum certain means that the amount to be paid must be definite.

The face value of a promissory note is the amount specified in the instrument. Maturity value is the amount payable when the note is due; it agrees with the face value if the note is non-interest bearing; it exceeds the face value if the note bears interest. A note does not bear interest unless so stated.

All notes must be dated and, if not payable on demand, the maturity date must be fixed or determinable. If the note is payable on demand, it must be paid upon presentation to the maker; if fixed, the due date is specified—as April 6, 19__; if

determinable it is payable a given number of days, months, or years after the date of the note.

The place of payment should be stated if it is other than the place of business of the person engaging to pay.

Purpose and Use of Notes

The main purpose of a promissory note is to act as an evidence of indebtedness. As an evidence of indebtedness a negotiable note is particularly serviceable because

1. It specifies a definite sum of money.
2. It is payable on demand or at a specified or determinable date.
3. It is easily transferred.
4. It is accepted in court as prima-facie evidence of the correctness of the original claim.

Notes are in very general use in business but they are particularly serviceable to banks when extending loans to borrowers, and to creditors in making definite the amount and date of payment of customer obligations.

Illustrations of Notes

$470.27 Philadelphia, Pa., July 17, 19—

Thirty days after date I promise to pay to

the order of Arnold C. Blake

Four hundred seventy and 27/100 Dollars

Payable at The Second Street National Bank

Value received.

No. 14 Due August 16, 19— Harry B. Davis

Noninterest-bearing promissory note.

$290.80 Philadelphia, Pa., July 17, 19—

Thirty days after date I promise to pay to

the order of Harrison B. Adams

Two hundred ninety and 80/100 Dollars

Payable at The Second Street National Bank

Value received, with interest at 6%, per annum.

No. 15 Due August 16, 19— George P. Roth

Interest-bearing promissory note.

Parties to a Note

There are two original parties to a note

1. The *maker* who promises to pay.
2. The *payee* to whose order the note is made payable.

If a payee indorses a note and transfers it, he is known also as an *indorser.* The person to whom title to the note is transferred is known as the *indorsee.* The indorsee may become, in turn, an indorser.

Indorsements

A promissory note or other negotiable instrument may be indorsed on the back in one of a number of forms to meet the needs of the situation.

1. Unqualified indorsements
   - *a.* If indorsed *in blank* the indorser merely signs his name on the back of the instrument, thereby making it payable to any holder without further indorsements.
   - *b.* If indorsed *in full* or *special* the indorser writes on the back of the instrument "Pay to the order of ____ (a named party)" and signs his name. Such an indorsement requires an indorsement by the indorsee for further transfer of the instrument.
2. Restricted indorsement
   If to a *blank* or *full* indorsement are added restrictive words such as, "For Collection Only" or "For Deposit Only," the instrument can be used solely for such restricted purpose. In such a case the party to whom the instrument is transferred (usually a bank) is merely the agent of the indorser.
3. Qualified indorsement
   If to a *blank* or *full* indorsement are added the words "Without Recourse," the indorser indicates that he transfers title to the instrument but is not to be held liable for it if the maker does not pay at maturity.
4. Accommodation indorsement
   An accommodation indorsement is usually a *blank* indorsement by an indorser who is accommodating the maker of the instrument without any consideration being given. An accommodation indorsement is a means whereby the

accommodation indorser lends credit to the maker in a case where the payee desires the written promise of the maker supplemented by another name.

Note Accounts

A promissory note to the maker is an instrument to be paid; hence it is recorded in the account Notes Payable. To the holder of a note (the payee or indorsee) it is an instrument the value of which is to be received and is recorded in the account Notes Receivable.

If the holder of a note indorses it to a creditor, without qualification, or discounts it at the bank, he is liable to subsequent holders for the amount of the note, if it is not paid by the maker at maturity. Between the date of indorsement and the maturity date of the note such a liability is known as a *contingent liability.* In order that the contingent liability of an indorser may be shown on his books, the credit entry at the time a note is indorsed is not made to Notes Receivable but to the account Notes Receivable Discounted. In determining the status of notes receivable for an enterprise, at a particular time, both Notes Receivable and Notes Receivable Discounted accounts are considered. In presenting the facts of these two accounts on a balance sheet the amount of the Notes Receivable Discounted account is shown as a subtraction from the amount of Notes Receivable and the difference is extended among the current asset amounts.

The fundamental character of a particular note never changes to the business which issues or receive it. If a note is a notes payable to an enterprise it never becomes a notes receivable to that enterprise; a note which is a notes receivable to an enterprise never becomes a notes payable to that enterprise although it may become by indorsement and transfer a notes receivable discounted. Since the Notes Payable account is credited when a note is issued and is debited when a note is paid, it follows that the Notes Payable account cannot have a debit balance; if it has any balance it must be a credit. Since the Notes Receivable account is debited when a note is received and is credited when a note is paid, and Notes Receivable Discounted is credited when a note receivable is transferred, it follows that the Notes Receivable account cannot have a credit balance; if it has any balance it must be a debit one. In view of the fact the Notes

Receivable Discounted account is credited to show the contingent liability on a note receivable indorsed and is debited when the contingent liability is ended, it follows that if this account has a balance it must be a credit one. It also follows that if the Notes Receivable Discounted account has a balance, the Notes Receivable account must have a balance of at least the same amount.

Renewing Notes

If the payee of a note permits the maker to renew it, a new note is made out. In such a case the payee in order to show the complete history of the transactions should charge the old note to the account of the maker and credit the maker with the new note. The maker should record the transaction by crediting the old note to the account of the payee and charging the payee with the new note.

Dishonored and Protested Notes

When a note or other negotiable instrument is not paid at maturity after being properly presented to the maker, it is said to be dishonored.

If payment for a negotiable instrument is not obtained at maturity, the holder should serve notice of dishonor on any indorsers in order to avoid the discharge of liability by them. This notice usually is in the form of a Certificate of Protest issued by a notary public or other officer authorized by law to administer oaths.

Since note transactions so frequently involve interest or discount, the illustrative entries for note transactions are deferred until interest and discount are considered.

INTEREST AND DISCOUNT

If an enterprise borrows or lends capital, whether the loan is evidenced by notes, bonds, mortgages, or other forms of indebtedness, interest or discount is likely to be a factor.

Definition of Terms

Interest is a charge made for the use of capital. From the standpoint of the lender, interest is a source of income; to the borrower it is an expense.

Discount is a reduction from a principal sum made usually in consideration of the payment of an obligation prior to maturity or as the interest charge on a loan which is due at a future date. It differs from interest in that it is deducted from the principal sum rather than added to it.

Ordinarily, interest is paid by the borrower after the use of the capital, while discount is paid before the use of the capital.

Classes of Interest

The more common classes of interest are interest on long-term indebtedness, such as interest on bonds or mortgages payable, interest on short-time loans, interest on securities owned; and interest income arising out of the usual business transactions, such as account, note, and bank-deposit transactions. Interest on long-term and short-term indebtedness should be kept separate as should interest earned on investment securities and interest earned from all other sources.

Account titles used for interest on long-term indebtedness are Interest on Bonds and Interest on Mortgages. Interest on short-term debt is recorded in Interest Expense account. Interest on securities owned is recorded usually in the account Interest on Investments, while all other interest earnings are recorded in the account Interest Income.

Classes of Discount

The more common classes of discount are cash, trade, commercial or bank, stock, and bond.

1. *Cash discount* is the allowance which is deductible by the buyer from the contract price of merchandise if full payment is made within a specified period. A cash discount is offered customers to encourage prompt payment of bills. The account titles used to record cash discounts are
   a. Sales Discounts on the books of the vendor.
   b. Purchase Discounts on the books of the vendee.
2. *Trade discount* is the allowance which is deductible by a customer from the published list price of merchandise to determine the contract price. Trade discount is used
   a. To care for fluctuations in the selling price of merchandise without reprinting the catalogue.

b. To conceal from competitors the actual selling price.

c. To quote different prices to quantity buyers and buyers of smaller amounts of merchandise.

In businesses where trade discounts are used the prices listed in catalogues purposely are made higher than the real selling prices are expected to be. By means of discount sheets the trade is kept informed of the trade discounts currently offered. The actual selling price at any time is the list price less the quoted trade discounts.

A trade discount is stated usually as a series of discounts such as 10 per cent, 10 per cent, and 5 per cent. When a series of discounts is stated the first rate applies to the list price and each succeeding rate applies to the diminishing base. For example:

List price	$1,000 00
Less 10 per cent	100.00
	$ 900.00
Less 10 per cent	90 00
	$ 810 00
Less 5 per cent	40.50
Selling price	$ 769 50

As customers are billed at actual selling prices (list prices less quoted trade discounts) it is not necessary to record trade discounts on the books of either the buyer or seller.

3. *Commercial* or *bank discount* is interest paid in advance. It arises out of the practice of discounting notes, under which practice a bank in making a loan to a borrower on a note may calculate the interest on the loan, deduct the amount as discount from the face amount of the note, and give the borrower the proceeds. The ledger accounts used to record commercial discounts are

   a. Interest Expense on the books of the borrower.

   b. Interest Income on the books of a business which earns such discounts.

4. *Discount on stock* and *discount on bonds* are allowances made to buyers when securities of an enterprise are sold at less than the par value. They will be explained more fully in later chapters.

The Time Factor in Interest and Discount

Interest and discount are expressed at an annual rate, but allowance is made for the length of time the capital is used.

Time Stated in Months. If the term of a note is stated in months, as one month or three months after date, the maturity date falls on the same day of some future month. If a note is dated the 31st, it will fall due the last day of the month in which it matures.

The following four illustrations show the variations in the actual life of notes dated the last day of the month:

Date of Note	Term of Note	Maturity Date
January 31	3 months	April 30
February 28	3 months	May 28
June 30	3 months	September 30
November 30	3 months	February 28 (Leap year, February 29)

Time Stated in Days. If the term of a note is stated in days, it is customary to count the actual number of days. To compute the number of days between two dates for interest or discount purposes omit either the first or the last day—briefly, count the midnights.

For example:

Date of Note	Term of Note	Maturity Date
January 31	90 days	May 1 (Leap year, April 30)
February 28	90 days	May 29 (Leap year, May 28)
June 30	90 days	September 28
November 30	90 days	February 28

Banks usually count the actual number of days which elapse regardless of the method of expressing the term of a note. Bank practice also may vary slightly as to the computation of the time, since some banks count both the first and the last day. If the maturity date falls on a Sunday or a holiday, the note is due and payable on the next business day.

Computation of Interest and Discount

Simple interest and discount are computed in the same manner and usually on the basis of a 360-day year. On the 360-day year basis, the computation for 30 days is the same as for one

month, and for 90 days it is the same as for three months. The United States Government uses exact time or 365 days (other than leap years).

Interest and discount are computed alike, by the formula

$$\text{Principal} \times \text{Rate} \times \text{Time} = \text{Interest}$$

Assume a principal sum of $1,500.00, an annual rate of 6 per cent, and a period of 48 days.

$$\begin{array}{ccccccc} \text{P} & \times & \text{R} & \times & \text{T} & = & \text{Interest} \\ \$1{,}500.00 & \times & .06 & \times & \frac{48}{360} & = & \$12.00 \end{array}$$

The time factor is expressed as a fraction, the numerator of which is the number of days for which the interest is desired, the denominator is 360.

Several shorter methods of calculating interest, especially for short periods of time, are based on the 360-day year and a 6 per cent per annum rate.

6 Per Cent 60-Day Method

Since 60 days is one-sixth of a 360-day interest year, if the annual rate is 6 per cent then the interest for 60 days at 6 per cent is 1 per cent of the principal. On any sum the interest for 60 days at 6 per cent is determined by pointing off two places to the left of the decimal point in the principal sum. If the time is other than 60 days, the interest for 60 days at 6 per cent is multiplied by a fraction, the numerator of which is the given number of days, the denominator of which is 60. For example:

$15.00 is the interest for 60 days at 6 per cent on $1,500.00

For 48 days at 6 per cent the interest is

$$\tfrac{48}{60} \text{ or } \tfrac{4}{5} \text{ of } \$15.00 \text{ or } \$12.00$$

The 6 per cent 60-day method may be used to advantage when the number of days is evenly divisible by 6, which makes possible reducing the fraction to lower terms.

6 Per Cent 6-Day Method

Another of the shorter methods determines first the interest at 6 per cent for 6 days. If the interest for 60 days at 6 per cent is determined by pointing off two places to the left of the decimal point in the principal sum, since 6 days is one-tenth of 60 days,

the interest for 6 days at 6 per cent is determined by pointing off three places to the left of the decimal point in the principal. After the interest at 6 per cent for 6 days is determined, the interest at 6 per cent for one day is obtained by dividing by 6. The quotient is then multiplied by the given number of days to find the desired interest at 6 per cent. For example:

$1.50 is the interest on $1,500.00 for 6 days at 6 per cent
$1.50 ÷ 6 equals $.25, the interest for 1 day at 6 per cent
$ .25 × 48 equals $12.00, the interest for 48 days at 6 per cent

The 6 per cent 6-day method may be used to advantage when the principal sum is evenly divisible by 6. If the principal sum is not evenly divisible by 6, there is frequently a temptation to drop a fractional part of a cent when the division by 6 is made. To overcome this objection, the rule may be restated as follows:

1. Determine the interest for 6 days at 6 per cent by pointing off three places to the left of the decimal point.
2. Multiply the result by the given number of days. The product is the interest for six times the number of days.
3. Divide the result by 6.

$1.50 is the interest on $1,500.00 for 6 days at 6 per cent
$1.50 × 48 equals $72.00, the interest for 288 days at 6 per cent
$72.00 ÷ 6 equals $12.00, the interest for 48 days at 6 per cent

Students will find this alternative method to be easier than most other procedures as it does not matter whether the principal sum or the number of days is evenly divisible by 6.

Either of the shorter methods may be used if the given rate is other than 6 per cent. The interest at 6 per cent is determined and is then multiplied by a fraction, the numerator of which is the given rate and the denominator of which is 6. If the given rate is 7 per cent, the interest is $7/6$ of the answer at 6 per cent; if the given rate is 5 per cent, the interest is $5/6$ of the answer at 6 per cent.

Computation of Discount on an Interest-bearing Note

If an interest-bearing note is discounted prior to maturity the discount is computed as follows:

1. The maturity value of the note is determined by adding to the face value the interest for the life of the note.

2. The unexpired time of the note is calculated by ascertaining the total number of days between the date of discount and the date of maturity.
3. The discount on the maturity value of the note for the unexpired time at the given rate of discount is computed.

Assume: A $2,500.00, 90-day 6 per cent interest-bearing note, dated March 4, is discounted on May 9 at a 6 per cent discount rate.

$2,500.00	is the face value of the note
37.50	is the interest for 90 days at 6%
$2,537.50	is the maturity value of the note
10.15	is the discount for 24 days at 6% on $2,537.50
$2,527.35	is the discounted value of the note on May 9

Since the above note is carried on the books of the holder at its face value $2,500.00 and produces $2,527.35, the $27.35 is interest earned. In the case of an interest-bearing note which is converted into cash for a larger amount than the figure at which it is carried on the books, it is not necessary to record the discount charged, but it is necessary to record the interest actually earned and received by the holder of the note. Similarly, if an interest-bearing note is discounted and produces less than the face value of the note, it is not necessary to record the interest earned on the note, but it is necessary to record as Interest Expense the difference between the face value and the discounted value.

ENTRIES FOR NOTES AND INTEREST AND DISCOUNT

Notes, whether interest-bearing or noninterest-bearing, are recorded always at their face value.

Some of the most common entries for both noninterest-bearing and interest-bearing note transactions follow. In order to simplify the presentation of these entries they are all shown as entries in a general journal. In practice, the entries which involve cash are entered in the cash journals and in businesses where sufficient notes are received or given to warrant the use of a notes receivable or a notes payable journal, or both, the appropriate entries are recorded therein. The date and the explanation parts of each illustrative entry are omitted.

Entries for Noninterest-bearing Notes

1. Assume: Gene Stuart gives a $1,500.00, 60-day note to Robert Todd to apply on account and Todd takes it at face value.

Maker's Journal			Payee's Journal		
Robert Todd	1,500.00		Notes Receivable	1,500.00	
Notes Payable		1,500.00	Gene Stuart		1,500.00

2. Assume: At the maturity of the note it is paid by the maker to the payee.

Maker's Journal			Payee's Journal		
Notes Payable	1,500.00		Cash	1,500.00	
Cash		1,500.00	Notes Receivable		1,500.00

3. Assume: At maturity the note is still held by the payee and is not paid by the maker.

Maker's Journal			Payee's Journal		
Notes Payable	1,500.00		Gene Stuart	1,500.00	
Robert Todd		1,500.00	Notes Receivable		1,500.00

The maker's entry shows that the note matured, was not paid, and that there is a liability to Robert Todd for the amount of the note.

The payee's entry transfers the amount due on the unpaid matured note to the account of Gene Stuart, the maker. It is important that this transfer be made in order to show in the maker's account a complete history of the dealings with him. The transfer of the unpaid matured note from the Notes Receivable account to an open account receivable in no way prevents the payee suing the maker on the note.

4. Assume: At the maturity of the note it is renewed by mutual consent, the maker giving the payee a new note with the same face value as the old note.

Maker's Journal			Payee's Journal		
Notes Payable	1,500.00		Gene Stuart	1,500.00	
Robert Todd		1,500.00	Notes Receivable		1,500.00
Robert Todd	1,500.00		Notes Receivable	1,500.00	
Notes Payable		1,500.00	Gene Stuart		1,500.00

These entries (with adequate explanation for each) on the journals of the maker and the payee show that the old note was disposed of by renewal.

5. Assume: At the maturity of the note $750.00 is paid and a new note for $750.00 is accepted by the payee from the maker.

Maker's Journal			Payee's Journal		
Notes Payable	1,500.00		Gene Stuart	1,500.00	
Robert Todd		1,500.00	Notes Receivable		1,500.00
Robert Todd	1,500.00		Cash	750.00	
Cash		750.00	Notes Receivable	750.00	
Notes Payable		750.00	Gene Stuart		1,500.00

6. Assume: That the note is held 15 days by the payee and is then discounted at the bank at a 6 per cent rate.

Maker's Journal			Payee's Journal		
			Cash	1,488.75	
No entry			Interest Expense	11.25	
			Notes Receivable Discounted		1,500.00

The maker of a note does not know immediately what a payee does with it; furthermore, the transfer of the note by the payee in no way changes its character to the maker.

The payee's credit to the account Notes Receivable Discounted records the contingent liability assumed by the payee at the time of indorsement. Although the note is no longer in the possession of the payee the $1,500.00 debit which appears for it in the Notes Receivable account is offset by the credit for the same amount in the Notes Receivable Discounted account.

7. Assume: That the note is held 15 days by the payee and is then transferred by indorsement and delivery to Ralph Dawes, a creditor, who agrees to take it at its discounted value on a 6 per cent basis.

Maker's Journal			Payee's Journal		
			Ralph Dawes	1,488.75	
No entry			Interest Expense	11.25	
			Notes Receivable Discounted		1,500.00

The facts of this assumption, with respect to the maker of the note, are comparable to those of the preceding assumption.

From the standpoint of the payee, the facts of this assumption are not identical with those of the preceding assumption, but they are quite similar. In illustration 6 the note was discounted and transferred to the bank for cash; in this instance the note was transferred at a discounted value to a creditor.

8. Assume: That the note had been discounted sometime in the past by the payee. At maturity the note is presented by the holder to the maker and is paid.

Maker's Journal			Payee's Journal		
Notes Payable	1,500.00		Notes Receivable		
Cash		1,500.00	Discounted	1,500.00	
			Notes Receivable		1,500.00

The payment of the note by the maker relieves the payee (and any other indorsers) of the contingent liability on the note. The payee and other indorsers of a note are not notified at the maturity of the note if it is paid by the maker but they should be notified promptly if it is not paid, otherwise they may assume it is paid and may be relieved of their contingent liability on it.

9. Assume: That the payee had discounted the note sometime in the past, that the maker does not pay the note at maturity, and that the payee pays the bank which discounted it the amount of the note plus fees incurred for protesting it.

Maker's Journal			Payee's Journal		
Notes Payable	1,500.00		Notes Receivable		
Protest Fees	2.00		Discounted	1,500.00	
Robert Todd		1,502.00	Notes Receivable		1,500.00
			Gene Stuart	1,502.00	
			Cash		1,502.00

It is necessary for the maker of the note to record the fact that his liability on the note is increased by $2.00, the amount of the protest fees. Robert Todd, the payee, who reimbursed the bank for the full amount of the note and the protest fees, has a claim on Gene Stuart, the maker, for $1,502.00. The entry given above for the maker's journal records this full claim of Robert Todd.

The first entry on the payee's journal clears the records of the contingent liability. The contingent liability became a real liability, the payment of which is recorded by the second entry.

Entries for Interest-bearing Notes

1. Assume: Gene Stuart gives a $1,500.00, 60-day 6 per cent interest-bearing note to Robert Todd to apply on account, and Todd takes it at face value.

Maker's Journal			Payee's Journal		
Robert Todd	1,500.00		Notes Receivable	1,500.00	
Notes Payable		1,500.00	Gene Stuart		1,500.00

2. Assume: At the maturity of the note it is paid by the maker to the payee.

Maker's Journal			Payee's Journal		
Notes Payable	1,500.00		Cash	1,515.00	
Interest Expense	15.00		Notes Receivable		1,500.00
Cash		1,515.00	Interest Income		15.00

3. Assume: At maturity the note is still held by the payee and is not paid by the maker.

Maker's Journal			Payee's Journal		
Notes Payable	1,500.00		Gene Stuart	1,515.00	
Interest Expense	15.00		Notes Receivable		1,500.00
Robert Todd		1,515.00	Interest Income		15.00

The maker's entry records the facts that the note matured and was not paid, that the interest expense was incurred, and that Robert Todd has a claim for the face value of the note plus the interest thereon.

The payee's entry records the facts that the maker of the note, Gene Stuart, owes the face value of the matured and unpaid note plus the interest accrued thereon.

4. Assume: At the maturity of the note the interest is paid but the note is renewed by mutual consent, the maker

giving the payee a new 6 per cent interest-bearing note with the same face value as the old note.

Maker's Journal			Payee's Journal		
Notes Payable	1,500.00		Gene Stuart	1,515.00	
Interest Expense	15.00		Notes Receivable		1,500.00
Robert Todd		1,515.00	Interest Income		15.00
Robert Todd	1,515.00		Cash	15.00	
Notes Payable		1,500.00	Notes Receivable	1,500.00	
Cash		15.00	Gene Stuart		1,515.00

5. Assume: At the maturity of the note the interest is paid as is $750.00 on account of the principal and a new 6 per cent interest-bearing note for $750.00 is accepted by the payee from the maker.

Maker's Journal			Payee's Journal		
Notes Payable	1,500.00		Gene Stuart	1,515.00	
Interest Expense	15.00		Notes Receivable		1,500.00
Robert Todd		1,515.00	Interest Income		15.00
Robert Todd	1,515.00		Cash	765.00	
Cash		765.00	Notes Receivable	750.00	
Notes Payable		750.00	Gene Stuart		1,515.00

6. Assume: That the note is held 15 days by the payee and is then discounted at the bank at a 6 per cent rate.

Maker's Journal			Payee's Journal		
			Cash	1,503.64	
No entry			Interest Income		3.64
			Notes Receivable Discounted		1,500.00

7. Assume: That the note is held 15 days by the payee and is then transferred by indorsement and delivery to Ralph Dawes, a creditor, who agrees to take it at its discounted value on a 6 per cent basis.

Maker's Journal			Payee's Journal		
			Ralph Dawes	1,503.64	
No entry			Interest Income		3.64
			Notes Receivable Discounted		1,500.00

8. Assume: That the note had been discounted sometime in the past by the payee. At maturity the note is presented by the holder to the maker and is paid.

Maker's Journal			Payee's Journal		
Notes Payable	1,500.00		Notes Receivable Discounted	1,500.00	
Interest Expense	15.00		Notes Receivable		1,500.00
Cash		1,515.00			

9. Assume: That the payee had discounted the note sometime in the past, that the maker does not pay the note at maturity, and that the payee pays the bank which discounted it the maturity value of the note plus protest fees.

Maker's Journal			Payee's Journal		
Notes Payable	1,500.00		Notes Receivable Discounted	1,500.00	
Interest Expense	15.00		Notes Receivable		1,500.00
Protest Fees	2.00		Gene Stuart	1,517.00	
Robert Todd		1,517.00	Cash		1,517.00

10. Assume: Gene Stuart owes Robert Todd $1,500.00 due this day. He cannot pay in cash so he gives, and Todd accepts, a 60-day note which includes in its face value interest on $1,500.00 at 6 per cent for 60 days as well as the full amount of the debt.

Maker's Journal			Payee's Journal		
Robert Todd	1,500.00		Notes Receivable	1,515.00	
Interest Expense	15.00		Gene Stuart		1,500.00
Notes Payable		1,515.00	Interest Income		15.00

The above example illustrates note transactions when the interest is included in the face value of the note.

DRAFTS

Definition

A negotiable *draft* is an unconditional written order of one party to another, signed by the drawer, directing the payment of a specified sum of money on demand or at a fixed or determinable future time, to bearer or to the order of a named party. Drafts are also known as *bills of exchange,* particularly when used in international transactions.

A draft differs from a note in that it is an order to pay while the note is a promise to pay. A note originates with a debtor while a draft originates with a creditor or a vendor.

Parties to a Draft

There are three parties to a draft, the drawer, the drawee, and the payee. The *drawer* is the maker of the draft, the one who draws it and whose signature is at the lower right corner of the draft. The *drawee* is the party on whom the draft is drawn, the one who is directed to pay and whose name appears at the lower left corner of the draft. The *payee* is the party in whose favor the instrument is drawn. The drawer may name a separate third party as the payee, he may make the draft payable to bearer, or he may name himself as the payee by making the draft payable to his own order.

Kinds of Drafts

Drafts may be classified as follows:

1. According to the time of payment as
   - *a.* Sight or demand. A *sight draft* is one which is payable immediately on presentation to the drawee.
   - *b.* Time. A *time draft* is one which is payable after a period of time has elapsed from the date it is drawn or is presented to the drawee for acceptance. A time draft is usually worded
     - (1) On (a definite future date), pay to the order of ________. In this instance the draft is payable at the fixed future date.

(2) Sixty days (or other definite period of time) after date, pay to the order of ________.
The words *after date* make the draft due and payable the given number of days after the date the draft is drawn.

(3) Sixty days (or other definite period of time) after sight, pay to the order of ________.
The words *after sight* indicate that the draft is payable the given number of days after it is presented to the drawee and is accepted by him.

2. According to the number of original parties as
   a. Three-party drafts. A *three-party draft* is one in which the drawer, the drawee and the payee are different persons.
   b. Two-party drafts. A *two-party draft* is one in which the drawer and the payee are the same person.
3. According to the drawer and drawee as
   a. Commercial. A *commercial draft* is one the drawer and drawee of which are not banks.
   b. Bank. A *bank draft* is one the drawer and drawee of which are banks.

Bank drafts are invariably three-party sight or demand drafts. Commercial drafts vary; they may be three-party time or sight, or two-party time or sight drafts.

Acceptance

The drawee of a draft does not have to accept it. If he accepts a sight or demand draft he does so by paying it. If he accepts a time draft he should write the word *accepted* and sign his name across the face of the instrument. It is customary also to write the date of the acceptance; if the draft is drawn payable a certain period of time after sight, the date of acceptance is necessary to determine the maturity date of the draft.

A time draft which has been accepted by the drawee is known as an *acceptance.* Since an acceptance represents the written acknowledgment of the drawee that he will honor the instrument at maturity, it is equivalent to a promissory note and is considered a notes payable by the drawee and a notes receivable by the payee.

Purpose and Use of Drafts

Drafts are used

1. As an aid in the collection of past due accounts. Drafts are used sometimes by creditors in an endeavor to collect overdue claims on customers. The creditor draws a two-party sight draft on the customer, indorses it, and gives it to his bank for collection. The creditor's bank tries to collect the draft through a bank near the customer. Since the customer may be fearful that refusal to honor the draft may reflect unfavorably on his credit with the home bank, he is more likely to honor the draft than to respond to collection letters.
2. As an aid in collecting some C.O.D. sales. C.O.D. sales shipped by freight are consigned on an "order bill of lading" to the shipper with the request that the transportation company notify the buyer of the merchandise on its arrival at destination. A two-party sight draft is drawn by the shipper on the buyer and is indorsed by the shipper as is also the bill of lading. The draft with bill of lading attached is then given by the shipper to his bank for collection or is mailed to a bank in the buyer's city. On receipt of the draft and bill of lading the bank in the buyer's city notifies the buyer that it has these two instruments. If the buyer pays the draft he receives the bill of lading with which he can procure the merchandise from the transportation company. Bills of lading are considered in Chapter XVII.
3. As a convenience in the collection and settlement of accounts. Suppose *B* in Pittsburgh owes $500.00 to *A* in Philadelphia and that *A* owes $500.00 to *C* in Pittsburgh. *A* could draw a draft on *B* payable to *C*; if the draft is paid by *B* the indebtedness of *B* to *A* and *A* to *C* is settled. Whether the draft would be a sight or a time one would depend on the terms of settlement which applied to the accounts. This type of draft is used less than formerly and should not be used ordinarily without the consent of the drawee.
4. As a means of converting open account balances into negotiable time paper. At the time of a charge sale of merchandise, the vendor may arrange with the customer

for the privilege of drawing a time draft on the customer, either immediately or subsequently. If the vendor finds that he needs negotiable time paper for discount purposes he may then draw a time draft on the customer. The draft, of course, must not advance the date of payment over the terms agreed upon at the time of the sale.

Illustrations of Drafts

$300.70 Philadelphia, Pa., July 17, 19__
At sight Pay to
The order of Harlan Schnader
Three hundred and 70/100 Dollars
Value received and charge the same to account of
To Brakely Woll
No. 29 Pittsburgh, Pa. Murray A. Brown

Three-party sight draft.

$760.43 Philadelphia, Pa., July 17, 19__
On demand Pay to
The order of Murray A. Brown
Seven hundred sixty and 43/100 Dollars
Value received and charge the same to account of
To Paul A. Denny
No. 30 Pittsburgh, Pa. Murray A. Brown

Two-party sight draft.

$420.90 Philadelphia, Pa., July 17, 19__
Sixty days after date Pay to
The order of Wallace L. Bacon
Four hundred twenty and 90/100 Dollars
Value received and charge the same to account of
To L. P. Lowry, Jr.
No. 31 Chicago, Ill. Murray A. Brown

Three-party time draft.

$1000.00	Philadelphia, Pa., July 17, 19__
Sixty days after sight	Pay to
The order of Murray A. Brown	
One thousand and no/100	Dollars
Value received and charge the same to account of	
To Henry L. Davis	
No. 32 Middletown, N. Y.	Murray A. Brown

Two-party time draft.

The above two-party time draft will be due 60 days after it is presented and accepted by Henry L. Davis, the drawee. Drafts drawn "after sight" should be presented to the drawee for acceptance as promptly as possible.

The Second Street National Bank	
No. 415	Philadelphia, Pa., July 17, 19__
Pay to the order of Murray A. Brown	$600.00
Six hundred and no/100	Dollars
To Tenth Street National Bank,	
New York, N. Y.	Walton H. Easby
	Cashier.

Bank draft.

A bank draft specifies no particular time for payment; therefore, like a check, it is due at sight or on demand. A bank draft is a check of one bank on a correspondent bank.

Other Forms of Demand Drafts

In addition to the bank draft there are many other forms of demand drafts in such common use that they are not referred to as drafts but by their own titles, such as *checks, cashiers' checks, postal money orders, and travelers' checks.* These forms of drafts will be considered in Chapter XVII.

Entries for Drafts

Since an accepted time draft is a notes receivable to the payee and a notes payable to the drawee, the entries for it at the time of payment, discount, or dishonor are the same as those

illustrated previously in this chapter for notes. The entries for both sight and time drafts at the time of their acceptance may be summarized as follows:

SUMMARY OF DRAFT ENTRIES AT TIME OF ACCEPTANCE

Conditions	Drawer	Drawee	Payee
Two-party Sight	Cash........... xxxx Drawee xxxx	Drawer.......... xxx Cash............... xxx	The Payee is the Drawer
Two-party Time	Notes Receiv- able....... xxxx Drawee xxxx	Drawer.......... xxx Notes Payable...... xxx	The Payee is the Drawer
Three-party Sight	Payee .... xxxx Drawee xxxx	Drawer.......... xxx Cash............... xxx	Cash........... xxxx Drawer........... xxxx
Three-party Time	Payee .... xxxx Drawee........... xxxx Notes Receiv- able....... xxxx Notes Receiv- able Dis- counted......... xxxx	Drawer.......... xxx Notes Payable...... xxx	Notes Receiv- able....... xxxx Drawer..... xxxx

The second entry illustrated for the drawer of a three-party time draft records his contingent liability. In the event the drawee of a three-party time draft does not honor it at maturity, the drawer is liable to the holder of the draft. Until the draft is paid, therefore, the drawer is contingently liable. The drawer's contingent liability is recorded by the same entry used to record the contingent liability of the indorser of a note. When the contingent liability of the drawer of a draft is ended the fact is recorded by the same entry used by the indorser of a note to record the fact he is no longer contingently liable.

Trade Acceptance

A trade acceptance is a time draft drawn by the seller on the purchaser of merchandise and accepted by the latter. A trade acceptance contains on its face a statement that it arose out of the sale of merchandise, by words such as: "The obligation of the acceptor hereof arises out of the purchase of goods from the drawer."

Trade acceptances are usually two-party time drafts. Since trade acceptances are drawn usually at the time merchandise is

sold, they are considered more desirable than ordinary notes and time drafts which may have arisen out of standing or even past due accounts.

TRADE ACCEPTANCE
Form Approved by the American Acceptance Council

Philadelphia, Pa. *July 17,* 19 — No. *33*
(City of Drawer) (Date)

On *September 15, 19-* Pay to the Order of Ourselves
(Date of Maturity)
Five hundred and no/100 Dollars (*$500.00*)

The obligation of the acceptor hereof arises out of the purchase of goods from the drawer, the drawee may accept this bill payable at any bank, banker or trust company in the United States which he may designate.

To *George B. Cameron*
(Name of Drawee)
19 New Market St.
(Street Address)
Massilon, Ohio.
(City of Drawee)

Hall and Harris
(Signature of Drawer)
By *James B Hall*

ACCEPTED
Date *July 19* 19
Payable at *Ninth Nat'l Bank*
(Name of Bank)
Location of Bank *Massilon, Ohio*
George B. Cameron
(Signature of Acceptor)
By

Trade acceptance.

Trade acceptances like other time drafts are considered notes receivable to the payee and notes payable to the drawee. The entries for them are the same as the entries already illustrated for notes and time drafts. Because trade acceptances are a particularly desirable class of notes, holders record them sometimes in the separate account Trade Acceptances Receivable.

QUESTIONS

1. What is a *promissory note?* Who are the original parties to a note and by what titles are they known? May any other persons become parties to a note and by what title are they known?
2. What is meant by *negotiability* and what words in a note indicate it?
3. What do you mean by the *face* value of a note? *Maturity* value? When are *face* and *maturity* values not the same? Does a note bear interest unless it definitely so states?
4. If you are willing to extend credit to a person or to lend him money, you are trusting him, so why bother to have him give you a promissory note?
5. Would you prefer to have money owed to you on a promissory note or on an open book account? Why?
6. If you borrow money at your own bank, would your bank require you to give it a note? Might the note be your own note, if so who are the parties? Might the note be one of your customer's notes, if so who are the parties?

7. *a.* Draw a 60-day noninterest-bearing note for $400.00 in which Arnold Beck is the *payee* and George Monroe is the *maker*.
   b. Draw a 30-day 6 per cent, $500.00 note in which Henry Hopkins is the *maker* and Howard Ickes is the *payee*.
8. Explain how an indorser might make
   a. An unqualified or *blank* indorsement.
   b. A *full* or *special* indorsement.
   c. A *restricted* indorsement.
   d. A *qualified* indorsement.
9. What is an *accommodation* indorsement? How and why is it made usually?
10. In what accounts are promissory notes recorded?
11. *a.* If a note is a note receivable, may it ever become a notes payable to the payee?
    b. If a note is a note payable, may it ever become a notes receivable to the maker?
12. *a.* What is meant by a *contingent liability?*
    b. Which original party to a note may acquire a contingent liability on the note? How?
    c. May there be a number of persons who are contingently liable on a particular note? Explain.
13. Without the use of figures, give the entries for the following transactions:
    a. Received a note from D. Gordon on account.
    b. Gave a note to H. Harr on account.
    c. Discounted at bank the Gordon note received in *a* above.
    d. Paid the note given to H. Harr in *b* above.
    e. The Gordon note received in *a* above and discounted in *c* above was not paid by the maker at maturity, so we paid it plus protest fee to the bank.
    f. Received a note on account from E. Williams.
    g. Discounted the E. Williams note received in *f* above.
    h. The E. Williams note matured and we did not receive a *notice* of *protest*.
14. Suppose the following account balances appear on our ledger:

Notes Receivable		Notes Payable		Notes Receivable Discounted	
18,000.00			10,000.00		7,000.00

    a. What amount of customer notes would you expect to find in the safe?

b. What amount of customer notes with our name on the back are in banks?
c. What is our direct or primary liability on notes?
d. What is our contingent liability on notes?
e. What is the greatest loss we may suffer on notes?
f. Assume we suffered the greatest possible loss on notes, would we be expected to pay out any money on them? How much?
g. How and where would the facts at the beginning of this question be shown on a balance sheet?

15. *a.* How is a note renewed?
b. What entry or entries should a payee make, if a note is renewed?
c. What entry or entries should a maker make, if a note is renewed?

16. *a.* What is *interest?* *Discount?*
b. What do you mean by a *cash discount?*
c. What do you mean by a *trade discount?*
d. What do you mean by *commercial* or *bank discount?*

17. In what account, if any, are recorded
a. Cash discounts received?
b. Cash discounts allowed?
c. Trade discounts received?
d. Trade discounts allowed?
e. Commercial discounts on a borrower's books?
f. Commercial discounts on a lender's books?
g. Interest received on ordinary notes receivable?
h. Interest paid on ordinary notes payable?
i. Interest received on bonds owned?
j. Interest paid on a mortgage payable?

18. How would you calculate a trade discount of 10 per cent, 10 per cent, and 5 per cent?

19. What is the maturity date of each of the following notes:
a. One drawn January 27 for 10 days?
b. One drawn March 15 for 30 days?
c. One which is payable one month from April 30?
d. One which is payable one month from January 31?

20. *a.* Is there any difference in the method of computing ordinary interest and discount?
b. Why is the interest at 6 per cent for 60 days, the same as 1 per cent on the principal sum for one year?
c. Why is the interest at 6 per cent for 6 days, the same as one-tenth of 1 per cent on the principal sum for one year?
d. What is the interest on $1,200.00 at 6 per cent for 30 days?
e. What is the interest on $2,400.00 at 6 per cent for 6 days?
f. What is the interest on $3,600.00 at 6 per cent for 1 day?

21. For what number of days was a note discounted, if it was drawn for 30 days on May 1 and was discounted on May 4? If it was discounted on May 12?

22. *a.* Give the journal entry for Arnold Beck in question 7*a*.
b. Give the journal entry for George Monroe in question 7*a*.
c. Give, in general journal form, the entry for Arnold Beck at the maturity of the note referred to in 7*a*.
d. Give, in general journal form, the entry for George Monroe at the maturity of the note referred to in 7*a*.
e. Give the journal entry for Henry Hopkins in question 7*b*.
f. Give the journal entry for Howard Ickes in question 7*b*.
g. Give, in general journal form, the entry of Henry Hopkins at the maturity of the note referred to in 7*b*.
h. Give, in general journal form, the entry for Howard Ickes at the maturity of the notes referred to in 7*b*.

23. Suppose A. Hill owed B. Davis $1,000.00 due today. Suppose also that Hill deferred payment by giving Davis a 60-day note which included, in its face, interest at 6 per cent for the 60 days.
a. Give Hill's entry.
b. Give Davis' entry.
c. Give Hill's entry when the note matures and is paid.
d. Give Davis' entry when the note matures and is paid.

24. What do you mean by a *draft?* Distinguish a *draft* from a *note.* By what titles are the parties to a draft known? What party may become an *indorser* of a draft?

25. *a.* What do you mean by a *sight* or *demand draft?*
b. What do you mean by a *time draft?*
c. What do you mean by a *three-party draft?*
d. What do you mean by a *two-party draft?*
e. What do you mean by a *bank draft?*

26. *a.* What do you mean by an *acceptance?*
b. What party *accepts* a time draft?
c. How is a sight draft accepted?
d. A *payee* records an acceptance in what account?
e. A *drawee* records an acceptance in what account?

27. Give some reasons why drafts are used.

28. Assume Smith owes Black $500.00 and Black owes Green $500.00.
a. Draw a 30-day, three-party draft for these facts.
b. Draw a three-party sight draft for these facts.
Assume the draft referred to in *a* was accepted.
c. Give Smith's entry.
d. Give Green's entry.
e. Give Black's entry.

Assume the draft referred to in *b* above was drawn and honored.

f. Give the payee's entry.

g. Give the drawer's entry.

h. Give the drawee's entry.

29. What do you mean by a *trade acceptance?* In what respect is it different from an ordinary draft? Would you prefer to hold the *trade acceptance* or the ordinary *acceptance* of a customer? Why?

CHAPTER XVII

BUSINESS PAPERS AND PRACTICES (*Continued*)

Business papers are not all negotiable instruments such as those considered in Chapter XVI. Some papers in very general business use are merely reminders and evidences of transactions, without which it would be extremely difficult, if not impossible, to conduct many businesses, especially if credit sales and purchases are made. From an accounting standpoint many of these papers are necessary as bases for entries.

It is the purpose of this chapter to continue the study of business papers and practices and to exhibit and explain the use of some business forms which were not considered in Chapter XVI. Some of the papers considered are negotiable, others are not.

In order to include some of the papers and practices considered in this chapter, it is necessary to think in terms of at least a fair-sized and well-organized business, a business where the proprietor has delegated some of the responsibility to others.

PAPERS AND PRACTICES FOR PURCHASES

Before any item is purchased by a business someone with authority has to observe that it is needed and request the purchasing agent, or other person charged with the responsibility of buying, to procure it. The request is made on a purchase requisition.

Purchase Requisition

A purchase requisition is a written request from one department of a business to the purchasing department to purchase goods or services. An example is the request of the office department through its manager to the purchasing agent to purchase an article needed by the office. A purchase requisition usually is made out at least in duplicate. The original is sent to the purchasing agent, the duplicate is retained by the issuing department.

Purchase Order

On receipt of a purchase requisition the purchasing department issues a purchase order to the business from which the purchase is to be made. This purchase order usually is made with extra copies. The original is sent to the vendor, a copy is kept by the purchasing department, a copy is sent to the department requesting the purchase as an acknowledgment of the receipt of the requisition and notice of compliance, and another copy may be sent to the receiving department, if the business has such a department, as advice to expect and prepare for the receipt of the material.

Purchase Invoice

Prior to the receipt of the purchase, or at least accompanying it, a purchase invoice is received. A purchase invoice is an invoice considered from the standpoint of the purchaser of goods. An invoice is a document sent by the seller of goods to the purchaser which shows at least the date; quantity, description and unit prices of the items purchased; the total amount; and the terms of payment.

The invoice number, the purchaser's order number, and other information are shown frequently on the invoice. The purchase invoice is also called a *bill.*

The form shown on page 230 is a *purchase invoice* to the Buyer Company and a *sales invoice* to the Seller Company. It contains the essential features of a satisfactory invoice but it should be noted that a simplified invoice form is used sometimes. The simplified form which is endorsed by the United States Department of Commerce contains more supplementary information than the form illustrated and has a section reserved for the customer's use only.

The purchase invoice is the first of the business papers referred to in this chapter which is the basis of an accounting entry. Usually an entry is not made for the purchase invoice until the goods are received, checked for quantity and quality, and the invoice checked for unit price, extensions, total amount, and terms. When the goods and invoice are checked and proper notation to that effect is made on the invoice, then it is used as the basis of an entry in the purchase records. The simplified

form of invoice provides space for proper checking by the customer. When the simplified form is not used the purchaser frequently provides a reminder of the items to be checked and a place for the checking by the use of a rubber stamp designed for that purpose.

THE SELLER COMPANY
Pittsburgh, Pa.

Invoice No. 763 Date July 19, 19__
SOLD TO The Buyer Company
27 Harrison Ave.,
Detroit, Mich.
Purchaser's Order No. 96
Terms 2/10, *n*/ 30. Shipped—P. R. R. Date July 19, 19__

Quantity	Description	Unit Price	Amount
15	Cases X X Material	10.00	150.00
25	Bbls. X X X Material	15.00	375.00
			525 00

An invoice.

Credit Memorandum

A credit memorandum or *credit memo,* as it is called, is a document issued by the seller of goods to the purchaser as notice that a credit on the books of the seller is given to the purchaser for reasons shown on the document. In form the credit memorandum is similar to an invoice but it is prepared on different-colored paper and is marked Credit Memorandum.

A credit memorandum is prepared in duplicate. The original is sent to the purchaser, the duplicate is retained by the vendor. Credit memos arise as the result of the delivery of defective

goods, of goods damaged in transit, of a quantity in excess of an order, of goods of a different quality or kind from those ordered, or for other reasons such as arithmetical mistakes on the invoice or the use of incorrect unit prices.

If the purchaser of goods has recorded the original invoice, the credit memorandum is the basis of an entry which debits the vendor and credits the appropriate account. If the original invoice has not been recorded, the credit memorandum is attached to it and an entry for the modified original invoice is recorded.

Debit Memorandum

A debit memorandum or *debit memo,* as it is called, is a document issued by the seller of goods to the purchaser as notice that a debit or charge is made on the books of the seller for reasons shown on the document. If the seller of goods prepaid freight for the convenience of the purchaser and the amount of the freight was unknown at the time the invoice was prepared, a debit memorandum would be issued by the seller for the amount of the freight. A debit memorandum also is used in cases where an error in the original invoice resulted in an undercharge to the purchaser. In form a debit memorandum is similar to a credit memorandum but it is prepared on different-colored paper and is marked Debit Memorandum.

A debit memorandum is prepared in duplicate. The original is sent to the purchaser, the duplicate is retained by the vendor. To the purchaser the debit memorandum is the basis of an entry which credits the vendor and charges the appropriate account.

A debit memo is the title given also to a document which originates with a buyer. It is a form used by some purchasers to notify a seller that the account of the latter is charged for an item such as goods returned or delivery charges paid by the purchaser on goods which were to be delivered at the expense of the shipper.

Bill

A bill is a document which shows the amount charged for goods sold or services rendered. The word bill is used as a synonym for invoice but its meaning is not limited to a document which shows charges for goods sold. The word bill also means a document which shows charges for services sold. Common

usage approves an expression such as, "Has the bill for the merchandise purchased been received?" but it does not approve "Has the invoice from the doctor been received?" or "Has the rent invoice been paid?"

Bills are received for services purchased, such as telephone, telegrams, repairs to plant and equipment, electricity, gas, water, freight, cartage, express, rent, and professional services.

A bill is the basis of an entry to the purchaser of a service, the same as an invoice is the basis of an entry to the purchaser of goods. It is quite common practice to postpone book record of bills until they are paid, at which time they are recorded as expenses in the cash disbursements journal. In order to keep a complete record of all liabilities it is recommended that bills received and not paid immediately should be recorded to show the expenses incurred and the liabilities created.

PAPERS AND PRACTICES FOR SALES

Sales originate in an order received from a customer or in orders obtained by salesmen. In sales of substantial amounts, it is desirable always to have the customer's signature on the order. If the sale is a charge one a sales invoice is prepared and sent to the customer at the same time as the merchandise.

Retail sales, both charge and cash, are recorded usually on the sales pads of the salesmen who take the orders. Each salesman's sales pad provides for at least a duplicate record to be kept and is numbered consecutively throughout in order that all sales tickets may be accounted for. The salesman must indicate for each sale whether it is a cash, a C. O. D., or a charge sale. If the sale is a charge one the original sales slip is the sales invoice; the duplicate is the basis of a charge to the customer in the sales journal. If the sale is a cash one the money and the slip are sent to the cashier. The cash received by the cashier from cash sales is verified by the amount of the cash sales slips and the duplicate sales-pad records kept by the salesmen. The method of recording charge and cash sales was explained in Chapter VIII.

Sales Invoice

The sales invoice is an invoice considered from the standpoint of the seller of the goods. Sales invoices may be made with a

number of extra copies. The original is sent to the purchaser of the goods; a copy is sent to the bookkeeper as the basis for an entry in the sales journal; another copy is sent to the shipping department as notice to ship the goods to the customer; other copies are used as needed. The sales invoice copies sent to the bookkeeper are used in some businesses as the sales journal. They are placed in a binder and postings are made directly from the bound duplicate sales invoices to the customers' accounts in the ledger. At the end of a period, say one month, the total of the duplicate invoices is obtained and is posted to the credit of the Sales account. The posted duplicate invoices are then placed in a more permanent binder and filed as the original records of that period's sales postings.

A credit memorandum, a debit memorandum, and a bill, all of which may be used by a vendor, were explained previously in this chapter.

A Statement

The word *statement* when used in connection with a personal account refers to a statement of the account. It is a periodic summary of the account which shows the balance at the beginning of the period, the amounts charged and credited to the account

STATEMENT
THE SELLER COMPANY
Pittsburgh, Pa.

To The Buyer Company
27 Harrison Ave.,
Detroit, Mich.

July 31, 19__

19__			Dr.				
July	1	Balance		400	00		
	13	Mdse. per invoice		600	00		
	19	Mdse. per invoice		525	00		
	27	Mdse. per invoice		915	00	2,440	00
			Cr.				
	8	Cash		400	00		
	15	Allowance, per credit memo		40	00		
	22	Cash		560	00	1,000	00
	31	Balance				1,440	00

A statement.

during the period, and the balance. It is customary in many businesses to send monthly statements to customers. These statements serve to remind customers of amounts due and provide opportunity for customers to compare their accounts with the records kept by the creditor. A statement usually does not reproduce all the details shown by the sales invoices sent to a customer during the period; it simply restates the items shown in the customer's ledger account in any form which will be understood clearly by the customer.

PAPERS AND PRACTICES FOR SHIPMENTS

The papers and practices for the delivery of merchandise over the counter or by the regular delivery service of the business need no special explanation. The same is true for deliveries made by parcel post and express, which agencies may be used also for C. O. D. shipments. Merchandise shipped by freight requires the preparation of a special business paper called the bill of lading.

Bill of Lading

A bill of lading is an instrument given by a transportation company to a shipper as a *receipt* for the goods to be carried and a *contract* to convey them. It is a written acknowledgment of the quantity and kind of goods received, and a contract in which the carrier agrees to convey the goods as stated on the face of the bill of lading but subject to the conditions printed on the back of the instrument.

There are two kinds of bills of lading—*straight* and *order* bills. Both straight and order bills are prepared in triplicate. The first copy is called the original, the second copy the shipping order, and the third copy the memorandum. The *original* is signed by the shipper and the carrier and is the shipper's receipt from the carrier and evidence of the contract to transport the goods. The *shipping order* is signed by the shipper and is retained by the carrier as evidence of its instructions. The *memorandum* is an exact copy of the original, is signed by both the carrier and the shipper and is retained by the shipper. Distinguishing differences between straight and order bills follow:

Differences	Straight	Order
Color of Paper	All copies white	Original on yellow paper. Shipping Order and Memorandum on blue paper
Negotiability	Nonnegotiable	Negotiable
In form of Consignment	Direct to Consignee	To the order of the shipper with request that purchaser be notified

A *straight* bill of lading is used in shipping goods which have been sold on credit. When a straight bill is used the customer may obtain the merchandise from the carrier without presenting the bill of lading.

An *order* bill of lading is used when the shipper desires to collect the amount of the sale before the carrier delivers the merchandise to the customer. This is done by attaching a sight draft to the order bill of lading (see Chapter XVI) and forwarding it for collection through a local bank or through a bank at the destination point. When the customer pays the agent bank the amount of the draft, the bank surrenders the bill of lading to the customer, who may then obtain the merchandise from the carrier. Under this plan the shipper controls the merchandise until collection is made. Goods shipped on order bill are not delivered until the original order bill of lading, properly indorsed to the holder, is presented.

(1) Uniform Domestic Straight Bill of Lading Adopted by Carriers in Official, Southern and Western Classification Territories, March 15, 1922, as amended August 1, 1930

UNIFORM STRAIGHT BILL OF LADING
ORIGINAL—NOT NEGOTIABLE

Shipper's No.______
Agent's No. 283

THE PENNSYLVANIA RAILROAD COMPANY

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading,

At__________________ 193__

From__________________

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said ... over all or any portion of said route to destination, and as to each party at any time interested in all or any of ...

Agent or ...

Per . . .
(The signature here acknowledges only the amount prepaid.)

Charges advanced.

$ . .

* If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."

NOTE.—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding ______ per ______

______ *Shipper* ______ *Agent*

*Per*______ *Per*______

*Permanent post-office address of shipper*______ 1

(2) Uniform Domestic Straight Bill of Lading Adopted by Carriers in Official, Southern and Western Classification Territories, March 15, 1922, as amended August 1, 1930

For use in connection with

THIS SHIPPING ORDER must be legibly filled in, in Ink, in Indelible Pencil, or in Carbon, and retained by the Agent.

Shipper's No.______
Agent's No. 285

THE PENNSYLVANIA RAILROAD COMPANY

RECEIVE, subject to the classifications and tariffs in effect on the date of the issue of this Shipping Order,

At__________________ 193__

From__________________

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself ...

(3) Uniform Domestic Straight Bill of Lading Adopted by Carriers in Official, Southern and Western Classification Territories, March 15, 1922, as amended August 1, 1930

For use in connection with

THIS MEMORANDUM is an acknowledgment that a Bill of Lading has been issued and is not the Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper's No.______
Agent's No. 287

THE PENNSYLVANIA RAILROAD COMPANY

RECEIVED, subject to the classifications and tariffs in effect on the date of the receipt by the carrier of the property described in the Original Bill of Lading,

At__________________ 193__

From__________________

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

Bill of lading.

PAPERS WHICH CIRCULATE AS CASH

Check

A check is a written order of a depositor on his bank to pay a specified sum of money to the order of a named person, or to bearer. Unless postdated a check is payable on presentation.

Pittsburgh, Pa. *July 20,* 19__ No. *116*

FORBES NATIONAL BANK 8-139
Fifth and Oakland

Pay to the Order of *Harris Towson* $ *90.20*

Ninety and 20/100 Dollars

Ralph B. Lonsdale

A check.

Cashier's Check.

A cashier's check is a bank's check drawn by its cashier on itself. Cashiers' checks are used in the payment of the expenses and liabilities of a bank and are issued to depositors who may wish to purchase them. When a person wishes to make a payment where his own check may not be acceptable, he may purchase a cashier's check and use it. As a rule, a cashier's check is accepted in payment more readily than an individual's check because the bank is better known.

Certified Check

A certified check is a depositor's check on which a bank officer has certified that the depositor has sufficient funds on deposit to meet the check. The bank officer certifies for the bank that the check is good by stamping a word such as *certified* and the name of the bank across the face of the check and by adding his signature. The amount of the check is deducted at once from the depositor's account in the bank and thereafter the certified check is a liability of the bank to the holder.

Travelers' Checks

Travelers' checks are checks issued by a bank, bankers' association, or by an express company, all in even denominations, for the convenience of a traveler who is the payee. Each check carries a specimen of the signature of the payee. When the payee desires to cash one of the checks he identifies himself by countersigning the check to match the specimen of his signature. Travelers' checks are accepted generally by hotels and banks.

Express Money Order

An express money order is a sight draft of an express company payable at any one of its branches, which is used for the same purpose as a check. One important use is to remit cash for a C. O. D. shipment sent by express.

Postal Money Order

A postal money order is a sight draft issued by one postmaster on another but payable on identification at any postoffice.

Bank Draft

A bank draft is a check drawn by a bank on a depository bank (see Chapter XVI). Bank drafts are used in the payment of the expenses and liabilities of banks. Like cashiers' checks, bank drafts may be purchased by persons who desire to use them in making payments.

As all of the seven forms of commercial paper defined above are orders to pay cash on presentation they are considered cash items and are recorded in the cash journals.

PAPERS AND PRACTICES RELATING TO A BANK ACCOUNT

Almost every businessman has a deposit account with a commercial bank. Such an account offers many advantages in that it provides a safe place in which to keep money; is a means of collecting notes, drafts, checks, and other cash items; and permits the use of checks for payments by the business. Payment by check is not only a great convenience to the drawer but the indorsement by the payee is an acknowledgment of its receipt. A businessman's bank is also the source of his bank loans and the place where the discount of commercial paper may be made.

Opening the Account

After a prospective depositor has selected a bank on the basis of safety, convenience of location, and possible services to him, it is necessary that he be introduced to the bank by a responsible person. The introduction is required because the reputation of the bank depends in large part on the reliability of its depositors. A record is kept by the bank of the depositor's sponsor.

It is necessary for a depositor who has been accepted by a bank to sign a "signature card" to indicate to the bank the signature he will use in signing checks.

Deposit Ticket or Slip

A deposit ticket or slip is a form provided by the bank on which the depositor lists the items of a deposit. Toward the

Deposited at
GIRARD TRUST COMPANY
To Credit of

Raymond B. Evans
431 New Market St.

July 21, 19__

Subject to the rules and conditions of the Philadelphia Clearing House Association of which the depositor admits receiving notice.

(Please Omit Dollar Mark)	Dollars	Cents
Notes	100	00
do 1's and 2's	19	00
Coin	4	25
	123	25
Checks and Coupons, as follows (enter singly) (If in City, name of Bank; if out of City, name of place where payable)		
1st National	17	23
4th National	101	19
New York, N. Y.	202	43
Chicago, Ill.	27	04
TOTAL	471	14
(Please Omit Dollar Mark)		

Deposit ticket or slip.

top of the ticket are spaces for the name and address of the depositor, and the date. Then follows spaces for listing notes, coin, and checks. Checks are listed separately. The deposit ticket is handed to the teller at the bank along with the deposit and is kept by the bank.

Passbook

The passbook is a small book provided by the bank in which the total amount of a deposit is entered by the bank at the time a deposit is made. It acts as a receipt to the depositor for deposits made.

Checkbook

A checkbook is a book of detachable blank checks and stubs which is provided for the depositor by the bank. Its form varies;

Back of Previous Stub		Stub			Checks
Brought Forward	1,619.22	Brought Forward	300	06	
July 20, Deposit	46 19	No. 241			No. 241
July 21, Deposit	201 09	July 20, 19__			Pittsburgh, Pa.
July 22, Deposit	634 26	Business Week			FORBES NATIONAL BA
		3 yr. Subscription	10	00	Pay to the
					order of Business Week
					Ten and no/100 . .
		No. 242			No. 242
		July 21, 19__			Pittsburgh, Pa.
		A. R. Harris			FORBES NATIONAL BA
		Invoice of			Pay to the
		July 12, less	78	40	order of A. R. Harris
		2 %			Seventy eight and 40/100
		No. 243			No. 243
		July 22, 19__			Pittsburgh, Pa.
		B. F. Dawson			FORBES NATIONAL BA
		Invoice of			Pay to the
		July 13, less	294	00	order of B. F. Dawson
		2 %			Two hundred ninety four. . .
Carried forward	2,500 76	Carried forward	682	46	

Checkbook with three checks to the page.

some checkbooks are single-check size with stub, others include several checks and stubs to the page.

Deposits as made are entered by the depositor on either the front or the back of a stub in the checkbook. As a check is drawn its stub is filled out to agree with the check as to number, date, name of payee, and amount. The reason for the payment should also be shown on the stub. In single-check-size checkbooks it is customary to deduct the first check from the deposits as shown on the stub, to carry the balance forward, to add to the balance each deposit as made and to deduct from the balance each check drawn. In checkbooks with several checks to the page, between periodic balances it is customary to carry forward the balance and deposits as an accumulating total, and to carry forward separately the accumulating total of check stubs. The checkbook balance naturally is the excess of the total of the preceding balance and deposits over the total of checks drawn. The procedure of keeping the checkbook may be changed to suit the wishes of the depositor provided all essential information about deposits and checks is shown.

Drawing a Check

A check should be drawn carefully to insure that it is payable to the proper person and for the correct amount. The amount of the check stated in figures should be entered close to the dollar mark and should agree with the written amount. The amount stated in writing should begin at the extreme left of the amount space and any unused portion of the space should be voided by an irregular line.

The Bank Statement

The bank statement is a report submitted periodically (very often monthly) by a bank to a depositor to show the bank's record of the depositor's account for the period. It shows the bank's balance of the account at the beginning of the period, deposits made and other credits, a list of the checks paid and other debits, and the balance at the end of the period. The checks paid and canceled by the bank and other debit and credit memoranda are returned to the depositor with the statement.

On the back of the statement there is printed very often a form to assist the depositor in reconciling the balance shown by his checkbook with the balance shown by the bank.

On receipt of the bank statement and canceled checks a depositor should prepare a reconciliation statement at once, in order that any errors by the bank may be reported immediately and any checkbook errors may be corrected at once.

Outstanding Checks

Outstanding checks are checks drawn on a depository bank but not presented for payment prior to the close of the period covered by the bank statement. In a current list of outstanding checks should be included any checks which were outstanding at the last reconcilement and which are still outstanding. A certified check which has not been presented for payment is not considered outstanding on the books of the drawer. The amount of such a check is deducted by the bank from the balance of the drawer's account at the time of certification by means of a debit memorandum which is charged to the depositor's account.

The Statement of Reconciliation

A statement or record prepared by a depositor to determine and account for the difference between the balance shown by the bank and the balance shown by his checkbook is known as a reconciliation statement. The average depositor prepares a reconciliation statement on the back of the stubs of his checkbook. If the statement cannot be shown there conveniently it should be prepared on a form to be kept permanently.

The balance shown on the bank statement and the checkbook balance may agree. This is seldom the case with active accounts, for the reason that the bank deducts from the depositor's account only those checks which are presented to it for payment, while all checks drawn are deducted in the checkbook. The two balances will differ by at least the amount of the outstanding checks.

Other items may contribute to the difference between the two balances. The depositor may not know that the bank has charged his account with collection and exchange fees or service fees. Deposits mailed and charged to the bank by the depositor

may not have been received by the bank in the period and may not have been credited. In addition to the above the difference between the two balances may arise in part from errors by the bank or the depositor.

The Reconciliation Process

1. Arrange canceled checks in numerical sequence.
2. Compare canceled checks with the list of outstanding checks at the previous reconciliation and with the current checkbook stubs, and make a memorandum of any errors.
3. In connection with 2 prepare a list to show the numbers and amounts of checks which are outstanding.
4. Compare deposits as shown by the bank statement with deposits as shown on the checkbook and make a memorandum of any errors and any items which appear on the bank statement or the checkbook, but not on both.

Very often the difference between the bank and the checkbook balances is the amount of the outstanding checks. If it is not, the errors and adjustments discovered in carrying out the four steps enumerated above, together with the outstanding checks, may explain the difference. If there is still an unexplained difference it may be the result of errors in addition or subtraction in the checkbook, and these should be verified. The unexplained difference may be due to an error by the bank.

If errors are found in the checkbook, instead of changing all subsequent totals and balances, the balance as of the date of reconciliation is corrected. The place of correction is noted on the stub on which the error took place.

It is possible to reconcile by bringing the checkbook figures into agreement with the bank balance, but the method which is recommended is to bring the bank's figures into agreement with the adjusted checkbook balance. The adjusted checkbook figure is the amount against which checks may be drawn, and is an important figure, therefore, from the standpoint of subsequent transactions with the bank.

Illustrations of Reconciliation Statements

If the difference between the two balances is simply outstanding checks, reconciliation is made by subtracting the total of the

outstanding checks, which are listed individually, from the bank balance, and the remainder agrees with the checkbook balance.

Bank Reconciliation Statement, July 31, 19__

Checkbook balance		$640.29
Balance per bank statement		$702.91
Deduct:		
Outstanding checks		
No. 403	$18.70	
407	15.20	
412	20.87	
413	7.85	62.62
Balance as per checkbook		$640.29

The reconciliation data may indicate that the incorrect checkbook balance has to be adjusted. If so, the adjustments are made, then the bank balance is brought into agreement with the adjusted checkbook balance.

Bank Reconciliation Statement, August 31, 19__

Checkbook balance		$ 813.09
Deduct:		
Collection and Exchange charged by bank		.50
Adjusted checkbook balance		$ 812.59
Balance per bank statement		$ 750.26
Add:		
Deposit of August 31 not credited by bank		278.44
		$1,028.70
Deduct:		
Outstanding checks		
No. 413	$ 7.85	
449	102.00	
461	18.90	
462	54.37	
463	32.99	216.11
Adjusted balance as per checkbook		$ 812.59

Entries after Reconciliation

Many depositors keep no other book record of cash items than a checkbook, and very often they make extreme errors in keeping it. Sometimes deposits are made and not entered in the checkbook or are entered in the wrong amount, checks are cashed and not recorded, and errors in addition and subtraction are made. After such persons have prepared reconciliation statements there

are no entries or adjustments to be made since there are no other records to adjust.

A depositor who keeps a complete record of cash transactions in cash journals is far less likely to make serious errors in keeping his checkbook. The balance shown by the cash journals should always equal the balance shown by the checkbook plus the amount of cash on hand. It is a general business practice to reconcile daily the balance of the cash journals with the checkbook and undeposited cash. When a depositor who keeps complete records discovers at the time of reconciling his bank account that there are errors or that there are items not recorded by him, it is necessary to correct all his records to conform to the facts shown in the bank reconciliation statement.

Errors discovered in reconciling may require entries to correct on the books of the depositor. For example, if the cash disbursements journal and the checkbook stub show a payment on account to a creditor during the month in the amount of $60.00 but the canceled check is in the amount of $66.00, an entry for the extra $6.00 payment is necessary.

Charges made and credits allowed by the bank during a period, but discovered by the depositor for the first time in reconciling, require entries in the cash journals. For example, the August 31 bank reconciliation statement showed that the bank had charged $.50 for collection and exchange items. The collection and exchange items are entered in the cash disbursements journal as a charge to Collection and Exchange.

THE TREATMENT OF SOME SPECIAL CASH ITEMS

Voided Check

If a check is spoiled at the time of preparation or subsequently, it should be marked *void* as should the stub. Such a check should be pinned or glued to the stub so that all checks may be accounted for.

Check Cashed for a Customer

If a check is cashed for a customer it is not necessary to make an entry on the books. The check which is received takes the place of an equivalent amount of cash in the daily deposit. If the check is not honored it will be charged back to the account

of the depositor by his bank. In that event the depositor would charge the customer in the cash disbursements journal for the amount of the dishonored check and would proceed to collect it at once.

Check Exchanged for Money

A person without a banking connection who wishes to make a payment through the mail may ask a depositor to make out a check payable to the order of a named party in exchange for an equal amount of money. If the depositor agrees, the cash received is credited in the cash receipts journal to the account of the individual for whose convenience the check is issued. The check is charged to the account of the same person in the cash disbursements journal. By cross-checking or writing *contra* in the folio columns, the personal account need not be posted.

Stopping Payment on a Check

The payment of a check may be stopped if, prior to presentment, a stop-payment slip is filled out at the bank and signed by the drawer.

Bank Overdraft

An overdraft exists in the account of a depositor if the bank honors checks which exceed in amount the balance in the depositor's account. Banks sometimes permit an overdraft in a small amount as a convenience to the depositor, but they are not required to do it. National banks are prohibited from doing it by statute. A depositor should be careful to avoid overdrawing his account. If he does and the bank refuses payment of a check it may be not only embarrassing but harmful to his credit.

Cash Over and Short

Cash Over and Short is the title of an account to which is charged any unexplained shortage in cash on hand and to which is credited any unexplained excess of cash on hand. Previously in this chapter it was explained that it is general practice to reconcile daily the book balance of cash with the checkbook and undeposited cash. When there is an unexplained difference, since the balance of cash on hand cannot be changed, it is

necessary to change the balance shown by the books. This is accomplished in the case of a shortage by an entry in the cash disbursements journal which debits Cash Over and Short account and credits Cash for the difference. In the case of an excess of cash on hand, the entry is made in the cash receipts journal as a debit to Cash and a credit to Cash Over and Short.

Some unexplained differences in cash are never found, as they are the result of mistakes in making change. Over a period of time such short or overchanging mistakes should about equalize each other. The amounts of other mistakes as they are discovered are transferred by journal entries from the Cash Over and Short account to the appropriate account titles.

Cash over and short items should be investigated very carefully. If at the end of a fiscal period there is a balance in the Cash Over and Short account, it is considered usually, if a debit balance, an expense; if a credit balance, an income.

OTHER PAPERS AND PRACTICES

It will be appreciated that not all the business papers and practices with which the accounting student should be familiar have been covered in this chapter and the preceding one. There are many other forms and practices, some in use entirely within an enterprise, such as the forms and practices connected with the accounting for labor and materials in a factory, and some in use between enterprises, such as the forms and practices in leasing, insuring or selling real estate, or investing funds. Some of these other papers and practices will be considered in connection with the topics of the remaining chapters, but yet others must be left for consideration by more specialized accounting texts or by books in other fields of business.

QUESTIONS

1. Do you think a professor of accounting has the right to purchase a portable blackboard for a university classroom and to charge it to his university? Do you think the dean of the school of business has that right? Explain. Who, in your university, has the right to purchase needed articles? How does he know the articles are needed?
2. What is a *purchase requisition?* Why is it customary to make it in duplicate?

3. What is a *purchase order?* How many copies are made of it and why?
4. *a.* What is a *purchase invoice?* What does it show, usually?
   b. Is a *purchase invoice* a *sales invoice* to anyone else? Who?
   c. Are *invoices* often referred to as *bills?*
   d. What is a *bill?*
   e. Would you say you received a *bill* or an *invoice* from your dentist? From your grocer? From your physician?
5. May the receipt of a purchase invoice precede the receipt of the goods? How may that happen? When is an entry made for a purchase invoice?
6. *a.* What is a *credit memorandum?* Who issues it? How may it be distinguished from an invoice? How many copies are made of it? Why? What occurrences usually prompt the issuance of credit memos?
   b. A *credit memo* arising out of the purchase and sale of merchandise is the basis for what entry on the books of the seller? The buyer?
7. *a.* What is a *debit memorandum?*
   b. A debit memorandum is the basis for what entry on the books of the buyer? The seller?
8. Give your views on the following statement: "It is not necessary for an enterprise to record, until they are paid, bills for telephone, telegraph, rent, gas, and electric services."
9. *a.* Suppose a *sales invoice* is made in triplicate. What is the disposition of each of the three parts?
   b. Distinguish between a *sales invoice* and a *monthly statement.*
   c. Is it customary for a department store to send a sales invoice for each charge sale? To send out monthly statements?
10. *a.* What is a *bill of lading?*
    b. Who are the parties to a bill of lading?
    c. How many copies are made of a bill of lading?
    d. What is each part called and what is the disposition of each part?
    e. How many kinds of bills of lading are there? What are they called?
11. *a.* How can you tell quickly whether a bill of lading is a *straight* or an *order* bill of lading?
    b. Give another important distinction between the two kinds of bills of lading.
    c. When is it customary to use the *straight bill?*
    d. When is it necessary to use the *order bill?*
12. Explain the procedure, when an *order bill* is used to make a C.O.D. sale on merchandise which is shipped by freight.
13. Can you name any article which is shipped frequently on order bills by manufacturers to dealers?

14. What is a *check?* Who may draw a check? Who are the parties to a check and by what titles are they known? When is a check payable? Is a check a draft?

15. *a.* What is a *cashier's check?* For what purpose is it used?

b. What is a *certified check?* For what purpose do you think it is used?

c. What are *travelers' checks?* Why are they used? How is the payee of a travelers' check identified?

d. What is an *express money order?* A *postal money order?* Why are these instruments used?

e. What is a *bank draft?*

f. If you received any one of the instruments mentioned in this question, in what journal would you enter it? Why?

g. If you lived in Texas and wanted to make a payment in New York City, in funds payable in New York City, how could you do it?

16. A bank account offers what advantages to a businessman?

17. What are the advantages of paying bills and invoices by checks?

18. What factors should influence a businessman in the choice of his bank?

19. Who makes out a *deposit slip?* Why? How is it made out?

20. What is a *passbook?*

21. After you have placed money in a bank, how do you get any of it out of the bank?

22. In drawing a check, care should be exercised on what particulars? Explain why in each instance.

23. A bank statement to a depositor gives what information? What does a bank send with the statement?

24. If your checkbook balance and the balance shown on the bank statement do not agree, which should be the larger amount, ordinarily?

25. What do you mean by a *reconciliation statement?*

26. In addition to checks outstanding, can you mention any other factors to explain a variance between your checkbook and the bank statement balances?

27. Indicate whether your checkbook balance would be under or overstated, and how much, as the result of each of the following errors:

a. You listed a deposit of $10.00 as $100.00.

b. You forgot to enter a $15.00 deposit.

c. You draw a check for $10.00 but listed it on the stub as $1.00.

d. You draw a check for $8.00 but forgot to list it at all.

e. You drew a check for $6.72 but listed it on the stub as $7.62.

f. In adding your check stubs you overadded by $100.00.

28. *a.* What entry would you make and where, if, in reconciling, you discovered that a $75.00 check drawn to the order of a creditor

during the month had been listed as $57.00 on the checkbook stub and the general books?

b. What proof is there of the error in *a*?

29. *a.* If you cashed a check for a customer, what entry would you make, if any?

b. Can you prevent the payment of a check, once you have issued it?

c. What is meant by a *bank overdraft?* Are banks likely to permit it?

30. *a.* How frequently should the Cash account and cash be reconciled? How is this done?

b. When is the Cash Over and Short account charged? In what journal?

c. When is the Cash Over and Short account credited? In what journal?

d. If you discovered that a $10.00 excess of cash three weeks ago was due to an unrecorded payment on account by a customer, what entry would you make and where?

CHAPTER XVIII

THE GENERAL AND SUBSIDIARY LEDGERS—CONTROLLING ACCOUNTS

Inadequacy of One Ledger

In the development of this text it has been considered that all the ledger accounts of a business are kept in one ledger. Such a point of view is fair for probably most small businesses, but it is not correct for any business where the number of accounts exceeds the ability of one person to record them. Obviously where there are too many accounts for one person to post, it is necessary to use more than one ledger.

In a business where there are so many accounts that more than one ledger is required for them or more than one person is necessary to post them, it is customary to divide the ledger into a number of very definite parts. From the ledger as it has been considered heretofore, there are taken certain account groups the accounts of which are sufficiently numerous to warrant their own separate ledgers. In the average business the personal accounts with customers constitute the largest single group and the personal accounts with creditors are likely to be the next largest group. These two groups of accounts are removed from the ledger as it has been known thus far, and are replaced therein by accounts which are known as controlling accounts, one controlling account for each separate group ledger. The separate new ledgers are known as subsidiary ledgers; the original ledger is known thereafter as the general ledger.

The General Ledger

The general or main ledger is the ledger in which all the accounts of an enterprise are kept in detail or through controlling accounts. In an accounting system where separate ledgers are provided for customers' and creditors' accounts respectively, the general ledger contains all accounts except the

personal ones, and for them it has two controlling accounts, one called Accounts Receivable, the other Accounts Payable.

Subsidiary Ledger

A subsidiary ledger is a ledger which contains accounts of like nature which are summarized and controlled on the general ledger by a controlling account.

All accounts with customers are of like character; they normally have debit balances, if any balance at all, and they represent amounts owed to the enterprise by its customers. Similarly, accounts with creditors have credit balances normally, if any balance at all, and indicate amounts owed by the enterprise to its creditors.

The subsidiary ledger for customers' accounts is known as the accounts receivable ledger, the customers ledger, the trade debtors ledger, and the sales ledger; the subsidiary ledger for creditors' accounts is known as the accounts payable ledger, the creditors ledger, the trade creditors ledger, and the purchase ledger. The accounts in a subsidiary ledger may be arranged alphabetically, alphabetically within certain geographical groups, alphabetically within wholesale and retail groups, or on other bases. The first plan mentioned is the usual one.

Controlling Account

A controlling or control account is an account in the general ledger which summarizes the accounts in a subsidiary ledger. The balance of the controlling account should equal the aggregate balances of the accounts in the subsidiary ledger which it controls.

The controlling account, Accounts Receivable, is known also as the Customers Controlling account, Trade Debtors account, and by other titles. The controlling account, Accounts Payable, is known also as the Creditors Controlling account, Trade Creditors account, and by other titles.

Advantages of Subsidiary Ledgers and Controlling Accounts

Many advantages result from the use of subsidiary ledgers and controlling accounts:

1. The trial balance is shortened. Each subsidiary ledger reduces the number of accounts which appear in the trial

balance of the general ledger by the number of open accounts in the subsidiary ledger less one.

2. The preparation of the statements is simplified by the shorter trial balance.
3. Certain responsibilities are fixed and accuracy encouraged. A well-organized accounting system usually provides that the work of one person checks with that done by another. Since the controlling account balance should equal the sum of its controlled account balances, it is possible to check the accuracy of the clerk operating a subsidiary ledger. Constant checking makes for accuracy.
4. The accounting system is made more elastic. The use of subsidiary ledgers makes it possible for more persons to be engaged in posting the entries of the business.
5. Specialization in the work of posting is provided and leads to more effective use of ledger accounts. For example, the person assigned the duty of posting the customers subsidiary ledger not only becomes fast and accurate in doing the work, but develops facility in interpreting the records on which he works. A customers ledger clerk should notice quickly such matters as the accounts which are past due, those which are becoming inactive, and those which include old and disputed claims which may become the cause of the estrangement of the customers. An effective customers ledger clerk is an able assistant to the credit and collection manager.
6. Errors are localized. Imagine the discouraging task of trying to locate errors in a general ledger which contains thousands of accounts. If subsidiary ledgers and controlling accounts are used and the trial balance does not balance, the total of the list of the balances of each subsidiary ledger is compared with its controlling account balance. Differences, if any, are reconciled. If the total of each subsidiary ledger list agrees with its controlling account, then the difference is caused most likely by errors in the remaining general ledger accounts. On the other hand, if the trial balance of the general ledger balances, but the total of a subsidiary ledger schedule does not agree with the balance shown by its controlling account, it may be assumed safely that the error is in the subsidiary ledger.

7. Posting delays are minimized. When reference is made to ledger accounts for certain information, it is advantageous to have like accounts grouped together. Where they are so grouped in subsidiary ledgers, work on all the accounts is not interrupted by the periodic examination of particular groups.

THE OPERATION OF SUBSIDIARY LEDGERS AND CONTROLLING ACCOUNTS

The form of a subsidiary ledger account is exactly the same as the account form heretofore considered.

The form of a controlling account is similarly the same as the account form previously considered. The controlling account receives its postings from the original entry books, usually however from column totals. Controlling account posting is done periodically, usually at the end of a month.

Debits to Customers for Sales

The initial items in customers' accounts are debits which originate in sales as recorded in the sales journal.

Assume the following sales journal transactions are to be posted:

SALES JOURNAL

Date		Account	Terms	F	Sales Invoice Number	Customer Debit	
19__							
Jan.	3	Richard Ewing	2/10, n/60	15	100	1,800	00
	8	William Jackson	n/30	19	101	600	00
	21	David Charles	1/10, n/30	7	102	720	00
	24	Variety Dep't. Store	60-day note	96	103	4,500	00
	29	H. T. Adams	n/30	2	104	3,000	00
	31	Accounts Receivable debit—Sales credit		2 30		10,620	00

Each customer listed in the above sales journal is debited in the accounts receivable subsidiary ledger and the page number of the account is inserted in the F (folio) column at the time of posting. If a loose-leaf subsidiary ledger is used, check marks,

instead of page numbers, are placed in the F column opposite the names of customers, as the accounts are arranged alphabetically.

By the end of the month, debits totaling $10,620.00 are entered in the accounts receivable subsidiary ledger, so it is necessary that this same amount be posted as a debit to the controlling account. The debit to the Accounts Receivable account and the credit to the Sales account are indicated on the last line of the sales journal. It is necessary to insert two page numbers in the F (folio) column on the last line, one for the debit and one for the credit.

Without the use of a subsidiary ledger and a controlling account, the posting of the illustrated sales journal would require in the general ledger five personal accounts with debit postings and one account (Sales) with a credit posting. With the use of the subsidiary ledger and the controlling account, the five personal accounts are opened in the subsidiary ledger and the only postings in the general ledger are as follows:

Accounts Receivable

19—											
Jan.	31		S 41	10,620	00						

Sales

						19—					
						Jan.	31		S 41	10,620	00

The one debit to the controlling account at the end of the month controls completely the debits (regardless of number) made to the subsidiary ledger during the month. The controlling account debit in the general ledger is offset by the credit to Sales for the same amount.

Credits to Creditors for Purchases

The initial items in creditors' accounts are credits which originate in purchases as recorded in the purchase journal.

Assume the purchase journal transactions, as shown at the top of page 256, are to be posted.

Each creditor listed in the following purchase journal is credited in the accounts payable subsidiary ledger. If a bound ledger is used the page number of the account is inserted in the F (folio) column at the time of posting; otherwise a check mark is inserted.

PURCHASE JOURNAL

Date		Account	Terms	F	Purchase Invoice Number	Creditor Credit	
19—							
Jan.	4	Futuristic Furniture Co.	2/10, n/30	12	50	3,000	00
	10	Elite Wholesalers	n/30	10	51	1,500	00
	19	Kates and Robbins	1/10, n/60	20	52	1,200	00
	24	Moore Mfg. Co.	1/2 cash, bal. 60	32	53	1,600	00
	30	Eastern Radio Sales Co.	n/60	9	54	500	00
	31	Purchases debit—Accounts Payable credit		33 20		7,800	00

By the end of the month, credits totaling $7,800.00 are entered in the accounts payable subsidiary ledger, so it is necessary that the same amount be credited to the controlling account. The credit to the Accounts Payable account and the debit to the Purchases account are indicated on the last line of the purchase journal. It is necessary to insert two page numbers in the F (folio) column on the last line, one for the debit and one for the credit.

The five personal accounts with creditors are opened in the accounts payable subsidiary ledger. The general ledger postings from the purchase journal are

Purchases

19—											
Jan.	31		P 19	7,800	00						

Accounts Payable

						19—					
						Jan.	31		P 19	7,800	00

The credit to the controlling account at the end of the month completely controls the credits (regardless of number) made to the subsidiary ledger during the month. The equality of the debits and credits in the general ledger is maintained because the controlling account credit is offset by the debit to Purchases for the same amount.

Credits to Customers for Cash Receipts

Cash receipts from customers are credited to them by entries in the cash receipts journal. Since cash receipts arise from general ledger sources, as well as from customer ledger sources, in order to obtain easily the total credits to customers in a period, for credit to the controlling account, it is necessary to add an extra column to the two already provided in the cash receipts journal.

It will simplify the recording of cash receipts transactions where discount is involved if an additional column is included and headed Sales Discounts.

Assume the following cash receipts journal for the business used to illustrate this chapter:

CASH RECEIPTS JOURNAL

Date		Accounts Credited	Explanation	F	Credit		Debit	
					General Ledger	Accounts Receivable	Sales Discounts	Cash
19__								
Jan.	2	Balance	12,200.00					
	2	Sales	Cash sale	30	200 00			200 00
	9	William Jackson	On acc't.	19		100 00		100 00
	12	Notes Receivable	F. Belden	3	1,000 00			
		Interest Income	On above note	53	10 00			1,010 00
	13	Richard Ewing	Inv. 1/3 less 2 %	15		1,800 00	36 00	1,764 00
	31	David Charles	Inv. 1/21 less 1 %	7		720 00	7 20	712 80
				✓	1,210 00			
	31	Accounts Receivable credit		2		2,620 00		
	31	Sales Discounts debit		51			43 20	
	31	Cash debit		1				3,786 80
Feb.	1	Balance	7,798.80					

The sum of the debit columns of any original entry book should equal the sum of the credit columns, otherwise there is a mistake. The sum of the Credit columns of the above cash receipts journal is $3,830.00. The Debit columns total the same figure.

The daily postings from the illustrated cash receipts book are credits to the six account titles listed in the Accounts Credited column. Three of these credits are made in the general ledger, as is evidenced by the three sets of figures which appear in the General Ledger column. The other three credits are made in the accounts receivable subsidiary ledger, as is evidenced by the three sets of figures which appear in the column for that ledger.

The credits to the individual accounts of customers are made in the accounts receivable subsidiary ledger, since that is the ledger in which the customers' accounts were opened.

At the end of the month, the total of the Accounts Receivable column is posted to the credit of Accounts Receivable in the general ledger, in order to summarize or control the credits made during the month from the cash receipts journal to the accounts receivable subsidiary ledger. The end of the month debit postings are as indicated—debits to Sales Discounts $43.20 and to Cash $3,786.80.

The postings made to the general ledger from the illustrated cash receipts journal, expressed as a general journal entry, are:

Sales Discounts	43 20	
Cash	3,786.80	
Accounts Receivable		2,620.00
Credits posted during the month		1,210.00

The above general journal entry is not made actually; it is used here simply to summarize in familiar form the debits and credits which are posted from the cash receipts journal to the general ledger at the end of the posting period.

The use of a General Ledger column and an Accounts Receivable column in the cash receipts book serves two purposes. First, to indicate to the posting clerk the ledger in which the account to be credited is found. The particular account to be credited is an account in the ledger indicated by the heading of the column in which the amount is entered. The second purpose of these two columns is to show clearly at the end of the month the amount of credit postings made during the month in the general ledger and for which no control posting is necessary, and the amount of credit postings made during the month to the accounts receivable subsidiary ledger and for which an end of the month credit to the controlling account is necessary.

The use of the Sales Discounts column makes it possible to record on one line of the cash receipts journal the debit to Cash for the amount received from a customer, the debit to Sales Discounts for the discount allowed the customer, and the credit to the customer for the full amount of the invoice. The Sales Discounts column eliminates the necessity for a general journal entry to record the discount, as was illustrated and recommended in Chapter VIII.

When the person who makes the end of the month postings from the cash receipts journal is familiar with the accounts to be debited and credited, it is unusual to rule the book at the end of the month, column by column, as in the illustration on page 257. The column totals are shown on the same line, and their ledger folios are shown in parentheses immediately below the totals, thus:

CASH RECEIPTS JOURNAL

Date		Account	Explanation	F	Credit: General Ledger		Credit: Accounts Receivable		Debit: Sales Discounts		Debit: Cash	
19—												
Jan.	1	Balance	12,200.00									
	31				1,210	00	2,620	00	43	20	3,786	80
Feb.	1	Balance	7,798.80		(✓)		(2)		(51)		(1)	

The cash balances on January 1 and February 1 are shown in the Explanation column as memoranda. In cash journals of this kind formal balancing of the two cash journals is not necessary. The cash balance may be obtained formally in the Cash account in the ledger.

The Accounts Receivable account in the general ledger, as the result of the sales journal and the cash receipts journal postings, appears as follows:

Accounts Receivable

19—						19—					
Jan.	31		S 41	10,620	00	Jan.	31		CR 17	2,620	00

The above account has a debit balance of $8,000.00, which means that customers owe the business that amount. If the various customer accounts in the subsidiary ledger are balanced and a list of the balances prepared, the total should be $8,000.00.

Debits to Creditors for Cash Disbursements

Cash payments to creditors are debited to them by entries in the cash disbursements journal. Since cash disbursements arise from general ledger causes, as well as from creditors ledger causes, in order to obtain easily the total cash payments to creditors in a period, for debit to the controlling account, it is necessary to add an extra column in the cash disbursements journal.

It will simplify the recording of cash disbursement transactions where discount is involved if an additional column is included and headed Purchase Discounts.

Assume the following cash disbursements journal for the business used to illustrate this chapter:

CASH DISBURSEMENTS JOURNAL

Date		Accounts Debited	Explanation	F	Debit: General Ledger	Debit: Accounts Payable	Credit: Purchase Discounts	Credit: Cash
19—								
Jan.	2	Rent Expense	Jan. in adv.	43	200 00			200 00
	6	Office Expenses	Stationery	44	50 00			50 00
	10	Purchases	Cash purchase	33	800 00			800 00
	14	Futuristic Fur. Co.	Inv. 1/4, less 2 %	12		3,000 00	60 00	2,940 00
	15	Salaries	Payroll	45	600 00			600 00
	19	Notes Payable	Haynes 60 days	21	1,000 00			
		Interest Expense	6 % on note	50	10 00			1,010 00
	24	Moore Mfg Co.	Acc't. Inv. 1/24	32		800 00		800 00
	29	Kates and Robbins	Inv. 1/19 less 1 %	20		1,200 00	12 00	1,188 00
	31	Salaries	Payroll	45	600 00			600 00
				✓	3,260 00			
	31	Accounts Payable debit		20		5,000 00		
	31	Purchase Discounts credit		54			72 00	
	31	Cash credit		1				8,188 00

The sum of the Debit columns of the above cash disbursements journal equals the sum of the Credit columns hence the debits and credits as originally recorded in this book balance.

The daily postings from this cash disbursements journal are debits to the ten accounts listed in the Accounts Debited column. Seven of these debits are made in the general ledger, as is evidenced by the seven sets of figures which appear in the General Ledger column. The other three debits are made in the accounts

payable subsidiary ledger, as is evidenced by the three sets of figures which appear in the Accounts Payable column. The debits to the individual accounts of creditors are made in the accounts payable subsidiary ledger, since that is the ledger in which the creditors' accounts were opened.

At the end of the month the total of the Accounts Payable column is posted to the debit of the Accounts Payable account, in order to control the debits made during the month from the cash disbursements journal to the accounts payable subsidiary ledger. The end of the month credit postings are as indicated—credits to Purchase Discounts, $72.00 and to Cash, $8,188.00.

In order to present, in a familiar form, the debits and credits posted at the end of the posting period to the general ledger from the cash disbursements journal, they are illustrated in the form of a general journal entry, as follows:

Debits posted during the month	3,260.00	
Accounts Payable	5,000.00	
Purchase Discounts		72.00
Cash		8,188.00

The advantages which result from the use of the General Ledger, Accounts Payable, and Purchase Discounts columns in the cash disbursements journal are comparable to those considered in connection with the use of the special columns in the cash receipts journal. The comments made about the end of the month ruling of the cash receipts journal by a person thoroughly familiar with the postings to be made apply equally to the cash disbursements journal.

The Accounts Payable account, after the cash disbursements journal is posted at the end of the month, appears as follows:

Accounts Payable

19—						19—					
Jan.	31		CD 20	5,000	00	Jan.	31		P 19	7,800	00

The above controlling account has a credit balance of $2,800.00, which indicates the amount owing to creditors on open account. The sum of the credit balances in the accounts payable ledger should be $2,800.00.

Other Credits to Customers—Other Debits to Creditors

Credits to customers for cash receipts have been considered, but credits from other sources have not. Customers are credited for notes received, for merchandise returned, and for allowances granted to them. The entries for such transactions, in the absence of a notes receivable journal and a sales returns and allowances journal, are made in the general journal.

It is evident from the past discussion that two Credit columns should be used in the general journal instead of one as heretofore. One of the Credit columns will show credits to be made in the general ledger, the other will show credits to be made in the accounts receivable subsidiary ledger and will provide readily the total of such credits for posting a credit to the Accounts Receivable account at the end of the month.

Debits to creditors for cash payments made to them have been considered, but debits from other sources have not. Creditors are debited for notes given, for merchandise returned, and for allowances obtained from them. The entries for such transactions, in the absence of a notes payable journal and a purchase returns and allowances journal, are made in the general journal.

It is evident again from the past discussion that two Debit columns should replace the one used heretofore in the general journal. One of the Debit columns will show debits to be made in the general ledger, the other will show debits to be made in the accounts payable subsidiary ledger and will provide readily the total of such debits for posting a debit to the Accounts Payable account at the end of the month.

When subsidiary ledgers for both customers and creditors are used, the general journal requires a minimum of four amount columns, two Debit and two Credit, as follows:

GENERAL JOURNAL
JANUARY. 19__

Debit		F	Date Debit and Credit Accounts Explanation	F	Credit	
Accounts Payable	General Ledger				General Ledger	Accounts Receivable

Other Debits to Customers—Other Credits to Creditors

Various other transactions with customers and creditors make necessary entries which sometimes include debits to customers and sometimes include credits to creditors. Such entries, if cash is not involved, are made in the general journal. They may be made in the four-column journal, as pictured above, but not so easily as in a six-column journal, which has an Accounts Receivable Debit column and an Accounts Payable Credit column, in addition to the four columns illustrated. Since the average general journal page accommodates six columns satisfactorily, their use is recommended.

GENERAL JOURNAL
JANUARY, 19__

Debit				Date		Credit		
Accounts Payable	Accounts Receivable	General Ledger	F	Debit and Credit Accounts Explanation	F	General Ledger	Accounts Receivable	Accounts Payable
				12				
1,500 00			10	Elite Wholesalers				
				Elite Furniture Company	11			1,500 00
				To correct improper credit, purchase journal 1/10				
				13				
150 00			11	Elite Furniture Company				
				Purchase Returns and Allowances	35	150 00		
				Return of defective merchandise				
				24				
		4,500 00	3	Notes Receivable				
				Variety Department Store	96		4,500 00	
				60-day note dated 1/24				
				25				
1,350 00			11	Elite Furniture Company				
				Notes Payable	21	1,350 00		
				15-day note dated 1/25				
				26				
100 00			32	Moore Manufacturing Company				
				Purchase Returns and Allowances	35	100 00		
				Allowance for damage in shipping				
				30				
	3,000 00		3	H. T. and C. B. Adams				
				H. T. Adams	2		3,000 00	
				Debts of H. T. Adams				
				assumed by H. T. and C. B. Adams				
		4,500 00	✓		✓	1,600 00		
	3,000 00		2	Dr.—Accounts Receivable—Cr.	2		7,500 00	
3,100 00			20	Dr.—Accounts Payable—Cr.	20			1,500 00

Assume the general journal, shown on page 263, is the journal of the business used to illustrate this chapter.

It will be noticed that the end of the month postings from the illustrated general journal include both debits and credits to each of the controlling accounts.

If a transaction involves a debit to a customer and a credit to Cash, or a debit to Cash and a credit to a creditor, the entry is recorded in one of the cash journals. Entries of this character arise as the result of transactions, such as the return of an overpayment to a customer, checks of customers returned by the bank because of insufficient funds, or the receipt of cash from a creditor for the amount of an allowance obtained and recorded after the purchase invoice was paid in full.

To illustrate, assume an example which is not connected with the accounts used to illustrate this chapter. John Marks, a customer, overpaid his account $100.00. His account in the customers ledger shows a credit balance of that amount, so a check for $100.00 is sent to him. The entry in the cash disbursements journal is as follows:

CASH DISBURSEMENTS JOURNAL

Date		Account	Explanation	F	Debit		Credit	
					General Ledger	Accounts Payable	Purchase Discounts	Cash
19— May	8	Accounts Receivable John Marks	return of overpayment		100 00			100 00

Both of the above debits are posted and two page numbers are inserted in the F (folio) column alongside the one amount of $100.00. The debit to John Marks is made in the accounts receivable subsidiary ledger. The debit to the Accounts Receivable account controls the posting to the subsidiary ledger. The entry for this transaction would be an easier one and would be made in the usual way if an Accounts Receivable column was included in the cash disbursements journal. Entries of this character are so exceptional they do not justify the inclusion of

an Accounts Receivable column in the cash disbursements journal and an Accounts Payable column in the cash receipts journal.

In order that a controlling account may control completely the subsidiary ledger it represents, it is necessary that every amount which is posted, as either a debit or a credit in the subsidiary ledger, be included in the summary postings or be posted separately to the controlling account.

The two controlling accounts used in the illustrations of this chapter appear now, as follows:

Accounts Receivable

19__						19__					
Jan.	31		S 41	10,620	00	Jan.	31		CR 17	2,620	00
	31		J 6	3,000	00		31		J 6	7,500	00

Accounts Payable

19__						19__					
Jan.	31		CD 20	5,000	00	Jan.	31		P 19	7,800	00
	31		J 6	3,100	00		31		J 6	1,500	00

Procedure If Note Journals Are Used

If notes received from customers are recorded in a notes receivable journal, then such entries are not included in the general journal. From the notes receivable journal the customers are credited in the subsidiary ledger and at the end of the month the daily postings are summarized for general ledger and controlling account purposes by posting a debit to Notes Receivable and a credit to Accounts Receivable for the total. If any notes received during the month had interest included in their face, the end of the month summary postings are a debit to Notes Receivable and credits to Accounts Receivable and Interest Income.

If a notes payable journal is used, all entries for notes issued to creditors are recorded therein and not in the general journal as illustrated. From the notes payable journal creditors are debited in the creditors subsidiary ledger, and at the end of the posting period the daily postings are summarized for general ledger and controlling account purposes by debiting Accounts Payable and crediting Notes Payable. If any notes were given

during the period with interest included in their face, the summary postings are debits to Accounts Payable and Interest Expense and a credit to Notes Payable.

Procedure If Returns and Allowances Journals Are Used

If a sales returns and allowances journal is used, the accounts of customers whose names appear therein are credited in the accounts receivable subsidiary ledger. The monthly summary debits Sales Returns and Allowances and credits Accounts Receivable.

If a purchase returns and allowances journal is used, the accounts of creditors whose names appear therein are debited in the subsidiary ledger for creditors. The monthly summary debits Accounts Payable and credits Purchase Returns and Allowances.

Control Procedure for Sales to Proprietor

If the practice in a business is to consider proprietor's withdrawals of merchandise as sales and to record them in the sales journal, a proprietor's personal account is opened in the accounts receivable subsidiary ledger. The proprietor may settle this account by payment with his personal check. If he does not settle with cash a general journal entry is made at the end of the fiscal period to debit the proprietor's personal account in the general ledger with the amount of his personal account in the customers subsidiary ledger. The debit amount of this entry is made in the General Ledger Debit column of the general journal; the credit entry is made in the Credit Accounts Receivable Ledger column. The effect of this entry is to prevent Accounts Receivable being overstated by the amount charged to the proprietor.

If merchandise withdrawn by the proprietor is recorded originally by general journal entry as a debit to the proprietor's personal account and a credit to either Purchases or Sales, the customers controlling account and subsidiary ledger are not affected.

Procedure to Record Sales to a Creditor and Purchases from a Customer

It sometimes happens that a charge sale is made to a creditor or a credit purchase is made from a customer. In such a situation

it is desirable to have accounts in both the customers and the creditors subsidiary ledgers with the person who has the dual relationship to the business. The accounts may be settled separately, in which case they offer no new problem. If both accounts are settled by a single payment, an entry is made of the cash item in the proper cash journal and the remaining balances of the accounts are adjusted by a general journal entry.

Procedure If a Controlled Account Shows an Opposite Balance

Sometimes an account in a subsidiary ledger shows a balance which is the opposite of its controlling account and of the balances of the other accounts in the same ledger. For example, a customer's account in the accounts receivable subsidiary ledger may show a credit balance, or a creditor's account in the accounts payable ledger may show a debit balance. Such a condition is caused usually by a credit memorandum issued or received after the account is settled in full, by an overpayment, or a deposit made to hold goods. When the subsidiary ledger total of balances is prepared for comparison with its controlling account, it is necessary to subtract the amount of such an opposite balance from the sum of the balances of the other accounts.

The sum of the opposite balances of a subsidiary ledger should be added to the amount of both controlling accounts for balance sheet purposes. For example, if a customer's account in the customers subsidiary ledger has a credit balance of $5,000.00, Accounts Receivable and Accounts Payable should be shown in the balance sheet for $5,000.00 more than the amount of the book balances of these controlling accounts. The balances of the controlling accounts are not changed.

References to Other Controlling Accounts

The principle of control which governs the use of subsidiary ledgers and controlling accounts has been fundamental in the development of modern accounting systems for large-scale enterprises. In addition to Accounts Receivable and Accounts Payable many other controlling accounts are in general use, such as Capital Stock, Stores, Work in Process, Finished Goods, Delivery Equipment, and Buildings. Some of these and other controlling accounts will be considered in later chapters.

QUESTIONS

1. What do you mean by a *subsidiary* ledger? A *general* ledger?
2. Suppose a business had a general and two subsidiary ledgers. How many ledgers would be used to take a trial balance? How is this possible?
3. What is a *control* account? What is the evidence of its control?
4. In what respect are all customer accounts alike in character? All creditor accounts?
5. What condition must exist to warrant the establishment of a subsidiary ledger for customers?
6. What is the most popular title of the controlling account for customers? For creditors?
7. Name a subsidiary ledger which you believe would be used by a bank. A department store. An electric-light company. A telephone company. A gas company.
8. Give at least four advantages resulting from the use of a subsidiary ledger and a controlling account.
9. Would it be possible for a business with 5,000 accounts to have a shorter trial balance than another business with 162 accounts? How?
10. Suppose a business has the following open accounts:

Assets (exclusive of customers)	50
Customers	22,000
Liabilities (exclusive of creditor accounts)	2
Creditor accounts	100
Expenses	20
Income	5
Proprietor	2

a. If all accounts are kept in one ledger, how many items would be in the trial balance?

b. If customer and creditor subsidiary ledgers are used, how many items would be in the trial balance?

11. In what way are responsibility and accuracy encouraged by the use of subsidiary ledgers?
12. How is an accounting system made more elastic by the use of subsidiary ledgers?
13. Do you believe a customer ledger clerk can become, in that position, more than a clerk who posts debits and credits to customer accounts? If so, how?
14. In a given month, who is the more likely to make clerical errors in posting, a customer ledger clerk or the general ledger bookkeeper? Why?

15. *a.* From what journal or journals do customer accounts receive debits? Credits?
b. From what journal or journals do creditor accounts receive credits? Debits?

16. Suppose a sales journal contained 379 charge sale records in a month. How many debits would be posted from that journal to
a. The general ledger?
b. The subsidiary ledger for creditors?
c. The subsidiary ledger for customers?
How many credits would be posted from that journal to
d. The subsidiary ledger for creditors?
e. The general ledger?
f. The subsidiary ledger for customers?

17. From the purchase journal which account in the general ledger is debited? Credited?

18. How is it possible to distinguish, in the cash receipts journal, cash received from customers from cash received from all other sources?

19. Suppose a cash receipts journal has money columns headed Cash, Sales Discounts, General Ledger, and Accounts Receivable, name two debits postings to the General Ledger each month. Name one credit posting.

20. Is there any advantage in having a Purchase Discounts column in the cash disbursements journal? What?

21. What end of the month column total postings are made from a cash disbursements journal with columns headed Cash, Purchase Discounts, General Ledger, and Accounts Payable?

22. From the cash disbursements journal illustrated on page 260,
a. How many debit postings were made to
(1) The subsidiary ledger for creditors?
(2) The subsidiary ledger for customers?
(3) The general ledger?
b. How many credit postings were made to
(1) The general ledger?
(2) The subsidiary ledger for customers?
(3) The subsidiary ledger for creditors?
c. What was the total amount (dollars and cents) of postings to the general ledger as debits? As credits?

23. How many money columns are desirable in the general journal, if the business uses a general ledger and a subsidiary ledger for customers? If it uses a general ledger and subsidiary ledgers for customers and creditors?

24. How would the following entries in the six-column general journal illustrated on page 263 be made in the four-column general journal illustrated on page 262?

a. The first entry—the one on January 12.

b. The sixth entry—the one on January 30.

25. Can you justify the inclusion of a proprietor's personal account in the customers ledger? What would you do with such an account, if it were open at the end of a fiscal period? Why?

26. May accounts with the same person appear in both the customer and creditor subsidiary ledgers? Why?

27. Suppose the Accounts Receivable account has a balance of $50,000.00, the Accounts Payable account a balance of $25,000.00. Suppose also there is one account in the creditor subsidiary ledger with an opposite balance of $10,000.00.

a. What do you mean by an opposite balance?

b. What could have caused the opposite balance here referred to?

c. What amounts should appear in the balance sheet, for the facts of this question?

CHAPTER XIX

COLUMNAR JOURNALS AND PETTY CASH SYSTEMS

COLUMNAR JOURNALS

In Chapter VIII the journal was divided into a number of journals on the basis of the types of transactions which occur frequently. The sales journal was provided for sales of merchandise transactions, the purchase journal for purchases of merchandise transactions, and the cash receipts and cash disbursements journals for receipts and payments of cash respectively.

In the preceding chapter when it was desired to classify further certain types of transactions this result was accomplished by the addition and use of extra columns in the special journals. For example, when the use of the general and subsidiary ledgers made it desirable that cash receipts be classified to distinguish those receipts which came from general ledger sources from those which came from customer ledger sources, this result was obtained by the use of a General Ledger column and an Accounts Receivable Ledger column in the cash receipts journal. The classification of cash payment transactions and of general journal transactions was accomplished similarly by the use of extra columns in the cash disbursements journal and the general journal. The cash receipts journal, the cash disbursements journal, and the general journal, which were developed in the preceding chapter as an incident to the study of the use and operation of subsidiary ledgers and controlling accounts, are columnar journals.

Definition and Purpose

A columnar journal is a journal with more than one debit column or more than one credit column.

Sometimes two money columns are sufficient to classify a journal as columnar. For example, if to the one-money-column sales journal, as developed in Chapter VIII, is added one extra

column to classify or analyze either the debits or the credits, the book is a columnar sales journal. There is no limit to the number of money columns which may be used in a journal except the limit which develops from the inconvenience of a book with too many columns.

Each journal of Chapter VIII provided the place to record the debits and the credits for transactions of a certain type. Each columnar journal similarly provides the place to record the debits and the credits for transactions of a certain type as well as the opportunity to classify or analyze the debits, the credits, or both, by means of extra money columns.

Form of Columnar Journals

There is no standard form for columnar journals. The form varies with the different journals and it may differ for the same journal as between two businesses. Sometimes one journal page is not wide enough to accommodate the necessary columns so the opposite page is used also, the two pages representing one page of that particular journal. Each journal should be designed so that the transactions entered in it may be recorded adequately and conveniently.

THE USE AND OPERATION OF COLUMNAR JOURNALS

As mentioned previously, the cash receipts, the cash disbursements, and the general journals which were developed in the preceding chapter are illustrations of columnar journals.

Columnar Sales Journal

Suppose a business desires to keep its merchandise purchases and sales classified by departments, of which it has three. Instead of one Purchases and one Sales account in the general ledger there will be three Purchases and three Sales accounts, a separate Purchases and a separate Sales account for each department.

Each customer named in the sales journal on page 273 is debited in the accounts receivable subsidiary ledger for the amount which appears in the Debit Accounts Receivable column opposite his name. At the end of the month the Accounts Receivable account in the general ledger is debited for the total

of the Debit Accounts Receivable column and each sales account is credited for the total of its column, as indicated.

SALES JOURNAL

Date		Account	Terms	F	Sales Invoice Number	Debit	Credit		
						Accounts Receivable	Sales Department A	Sales Department B	Sales Department C
19—									
Jan.	2	W. S. Smith,	2/10, n/30	22	1	225 00	100 00	50 00	0 75 00
	5	J. B. Jordan,	n/30	11	2	48 00	48 00		
	8	T. B. Wallace,	1/10, n/30	30	3	160 00	90 00	70 00	
	14	R. Jones,	2/10, n/30	10	4	165 00	80 00	60 00	25 00
	22	B. L. Hess,	1/10, n/30	9	5	220 00	105 00	75 00	40 00
	29	S. O. Peet,	1/10, n/30	17	6	205 00	115 00	45 00	45 00
	31	Accounts Receivable	Dr.	2		1,023 00			
	31	Sales Dept. A	Cr.	40			538 00		
	31	Sales Dept. B	Cr.	41				300 00	
	31	Sales Dept. C	Cr.	42					185 00

The postings to the general ledger at the end of the month expressed in the familiar two-column general journal form are:

Accounts Receivable	1,023.00	
Sales Department A		538.00
Sales Department B		300.00
Sales Department C		185.00

It is not customary to rule the sales journal at the end of the month as in the illustration. The column totals are all shown on the same line; and the ledger pages of the accounts, to which the end of the month postings are made, are not shown in the F (folio) column but in parentheses immediately below the totals as illustrated for the cash receipts journal on page 259. The practice of showing all column totals on the same line and the posting folios in parentheses below the totals is true not only for the sales and cash receipts journals but for all columnar journals.

The analytical sales journal as illustrated furnishes all the information that a single money column sales journal supplies plus an analysis of sales by departments. A business which uses a columnar sales journal as illustrated and a columnar purchase journal which provides an analysis of purchases by

departments is supplied with many of the data necessary for the preparation of departmental statements to show the gross profit or loss on sales. In order that such statements may be prepared it is also necessary to classify and record, by departments, the opening and closing inventories, transportation inbound charges, and returns and allowance transactions for both purchases and sales.

Recording Cash Sales

Cash sales are recorded by one of several plans.

1. By a charge to the customer in the sales journal and an immediate credit to the customer in the cash receipts journal. Since this method involves the opening of unnecessary customer accounts in the ledger it is too burdensome a plan to be followed where cash sales are frequent.

2. By an entry in the cash receipts journal. This entry is not made for each sale but for the total cash sales of a day. The cash receipts journal is chosen as the book of original entry rather than the sales journal because the cash receipts journal should show all receipts of cash. To record a cash sale in both the cash receipts and sales journals and to post in the usual way would result in two entries for each cash sale. If the cash sales include merchandise from each of the three departments, three lines of the cash receipts journal are required for the entry, thus:

CASH RECEIPTS JOURNAL

Date		Account	Explanation	F	Credit: General Ledger	Credit: Accounts Receivable	Debit: Sales Discounts	Debit: Cash
19__								
Jan	5	Sales Dept. A	Cash sales for day		20 00			20 00
		Sales Dept. B			15 00			15 00
		Sales Dept. C			12 00			12 00

Each departmental sales account is credited in the general ledger for the amount indicated. The debit to Cash in the general ledger is included as a part of the total posted to that account at the end of the month.

In a business where cash sales are recorded completely in the cash receipts journal, all sales slips including those for cash sales should be accounted for and carefully audited. A dishonest employee may attempt to cover a shortage in cash by destroying or underadding some cash sales slips.

If there are daily cash sales from each department, there is a daily three-line cash receipts journal record. In order to reduce the required daily cash sales entries and the resulting postings, and to provide a recording method whereby cash sales are checked and recorded by two different persons, cash sales are sometimes recorded by plan 3.

3. Cash sales are recorded in the cash receipts journal and the sales journal and their entry is facilitated by the use of a special cash sales column in each of these books. The Cash Sales columns are used only for sales of merchandise made solely for cash.

SALES JOURNAL

Date		Account	Terms	F	Sales Invoice Number	Debit		Credit		
						Accounts Receivable	Cash Sales	Sales Dept. A	Sales Dept. B	Sales Dept. C
19__										
Jan.	2	W. S. Smith,	2/10, n/30	22	1	225 00		100 00	50 00	75 00
	5	J. B. Jordan,	n/30	11	2	48 00		48 00		
	5	Cash sales for day		✓			47 00	20 00	15 00	12 00

CASH RECEIPTS JOURNAL

Date		Account	Explanation	F	Credit			Debit	
					General Ledger	Accounts Receivable	Cash Sales	Sales Discounts	Cash
19__									
Jan.	2	Balance	9,800.04						
	5	Cash sales for day		✓			47 00		47 00

Cash sales are entered in both journals individually or by daily totals as illustrated. The check mark in the F column of the sales journal is made at the time the entry is recorded to indicate that the debit item of $47.00 is not to be posted from that journal. The check mark in the F column of the cash

receipts journal is made also at the time the entry is recorded to indicate that the credit item of $47.00 is not to be posted from that journal. The debit to Cash in the ledger for the amount of cash sales is made as a part of the debit which is posted at the end of the month to that account from the cash receipts journal. The credits for cash sales are made to the departmental sales accounts in the ledger as parts of the end of the month credits from the sales journal. By this plan cash sales result in a debit to Cash through the cash receipts journal and credits to the departmental sales accounts through the sales journal. The totals of the Cash Sales columns in the two journals are not posted.

When cash sales are recorded by plan 3, an owner is able to determine at any time during a period, from the departmental sales columns in the sales journal, the total volume of sales both charge and cash.

4. Another method of recording cash sales uses a sales journal and a cash receipts journal ruled as illustrated in plan 3. The operation of this plan differs from method 3 in that complete postings are made for cash sales from both books. From the sales journal at the end of the month the total of the Cash Sales column is debited to a Cash Sales account in the general ledger. The credits from the sales journal are the same as in plan 3. From the cash receipts journal the total of the Cash Sales column is credited at the end of the month to the new account Cash Sales. The debit postings from the cash receipts journal are the same as in plan 3. The Cash Sales account should balance after both the sales and cash receipts journals are posted.

The check marks in the F columns of both journals are as necessary under this plan as in plan 3. The various debits to Cash Sales in the sales journal and the various credits to Cash Sales in the cash receipts journal are not posted individually but by totals from the Cash Sales columns of the two journals. The use of plan 4 discloses through the Cash Sales account the volume of cash sales business, period by period.

5. In businesses where departmental sales accounts are not used it is quite common to find cash sales recorded exclusively in the cash receipts journal by means of a special Cash Sales column in that book. The special Cash Sales column facilitates the posting of cash sale items. At the time of recording a check

mark is placed in the F column for each cash sale entry. The total of the Cash Sales column is credited to Sales at the end of a posting period and the offsetting debit is included in the debit to Cash for the total of the Cash column. This plan may be used if departmental sales accounts are kept, provided a special Cash Sales column for each department is included in the cash receipts journal.

In addition to the five plans which were described, there are other methods of recording cash sales. If a cash sale is made to a customer who is usually a charge customer, the cash sale should be recorded always in the sales journal as a charge to the customer. Credit should be given to the customer immediately in the cash receipts journal for the amount of the sale. This method preserves a record in the customer's account of all sales to him. Such a record is important in that it causes the customer's account to show both the total volume of business and a full history of the transactions with the customer.

Recording Sales for a Note

A merchandise sale for which a note is accepted immediately is recorded as two transactions. The sale is charged to the customer in the sales journal and the note is credited to the customer in the notes receivable journal, if one is used, otherwise in the general journal. A compound transaction of this kind is entered as though its parts occurred at different times.

Recording C.O.D. Sales

A local C.O.D. (cash on delivery) sale, where payment is received by the business the same day the sale is made, may be treated as a cash sale. Entry of the C.O.D. sales ticket is delayed until the goods are delivered, paid for and the cash is received at the business.

An out of town or other C.O.D. sale where payment is not received the day the sale is made, requires different treatment. Such a sale is recorded in the sales journal as a C.O.D. charge to the customer. The letters C.O.D. are written after the customer's name in the sales journal. The usual account in the accounts receivable subsidiary ledger is not opened for each C.O.D. customer because the charge is a temporary one which is to be satisfied on delivery of the merchandise. The debit is

posted to a section of the ledger headed C.O.D. Customers and the name of the customer is written in the explanation section of the line on which the debit is made. When payment is received at the business the C.O.D. customer is credited in the accounts receivable column of the cash receipts journal. The credit posting is made to the C.O.D. Customers account on the line opposite the debit.

A C.O.D. page in the accounts receivable ledger appears as follows:

C.O.D. Customers

19__						19__					
Jan.	4	R. S. Davis	S-	76	40	Jan.	5		CR-	76	40
	10	B. L. Jones	S-	89	26		12		CR-	89	26
	14	Sam L. Wilson	S-	14	80						
	16	Oscar S. Norton	S-	29	76		17		CR-	29	76

The illustration shows that all C.O.D. sales have been collected up to January 17, except the one made to Sam L. Wilson for $14.80 on the 14th of the month.

Columnar Sales Journal with Sundries Section

The sales journal illustrated previously was for a business with sales classified by departments. The same kind of columnar journal may be used by a business which does not have a departmental system but desires an analysis of sales by any other system of classification. Sales may be analyzed by names of salesmen, by geographical districts, by commodities or by other classification. Sometimes the sales journal is provided with a sundries section in which to record an exceptional sales item, *i.e.*, one which occurs so infrequently that a special sales column is not provided for it. When a sundries section is included, the sales journal may be used to record the sale of any item whether merchandise or not. The sale *on account* of a fixed asset or an investment may be recorded in a sales journal with a sundries section.

Suppose it is desired to classify the sales of a business by commodities and the sales journal shown on page 279 is provided.

The Sundries columns of the illustrated sales journal provide a place to record the sale of any item not represented by one of the special sales columns. The sale on the ninth of the month

SALES JOURNAL

Date		Account	Terms	F	Sales Invoice Number	Debit: Accounts Receivable	Credit: Sales Furniture	Credit: Sales Rugs	Credit: Sales Radios	Credit: Sundries Amount	Sundries F	Sundries Account
19__												
Jan.	2	A. L. Mead,	2/10, n/30	44	101	450.00	200.00	150.00	100.00			
	5	W. L. Dawson,	n/30	13	102	125.00		125.00				
	9	Harris & Smith,	n/60	22	103	25.00				25.00	12	Office Fur. and Fixt.
	14	B. J. Kaiser,	2/10, n/30	29	104	900.00	300.00	400.00	200.00			
	18	O. P. Wallace,	2/10, n/30	76	105	500.00	250.00	125.00	125.00			
	23	James Dern,	n/10	15	106	4.00				4.00	45	Sales Scrap
	27	S. Maxwell,	2/10, n/30	40	107	750.00	400.00	200.00	150.00			
						2,754.00	1,150.00	1,000.00	575.00	29.00		
						(2)	(42)	(43)	(44)	(✓)		

to Harris and Smith represents not the sale of merchandise but the sale of an extra newly purchased desk from the office of this business. The sale on the twenty-third to James Dern was the sale of a load of old crates, packing boxes, and wood in which goods had been delivered to the business.

Each customer named in the sales journal is debited in the accounts receivable ledger for the amount which appears in the Debit Accounts Receivable column opposite his name.

The figure 2 in parentheses below the double rulings in the Debit Accounts Receivable column indicates that the Accounts Receivable account on page 2 of the general ledger has been debited for the total of that column. The figures in parentheses under the totals of the three special sales columns indicate that the totals of those columns have been credited to their respective accounts on the pages mentioned. Each account in the sundries section is credited separately as is evidenced by the ledger page numbers in the F column of that section. The total of the Sundries Amount column is not posted.

Columnar Purchase Journal for Merchandise Only

The columnar purchase journal may be designed to record only purchases of merchandise. It may be ruled to classify merchandise purchases by departments, commodities or other classification. Such a purchase journal resembles in general form the sales journal illustrated on page 273.

PURCHASE JOURNAL

Date	Account	Terms	F	Purchase Invoice Number	Credit	Debit		
					Acounts Payable	Purchases Dept. A	Purchases Dept. B	Purchases Dept. C

The creditors named in the purchase journal are credited in the accounts payable ledger. The end of the month postings include a debit in the general ledger to each of the purchase accounts represented by a special column and a credit to Accounts Payable.

Recording Merchandise Purchases for Cash, for C.O.D., and for Notes

Cash purchases of merchandise, in the sense that a cash purchase means payment before delivery, practically never occur in some businesses. In the average business cash purchases are far less frequent than cash sales. Cash purchases of merchandise are recorded by plans similar to those described for recording cash sales.

A C.O.D. purchase is a cash purchase.

It sometimes happens that merchandise is paid for before it is delivered. When this situation occurs the payment is charged to the account of the vendor in the Accounts Payable column of the cash disbursements journal. On receipt of the merchandise the vendor is credited in the purchase journal.

A merchandise purchase for which a note is given immediately is recorded as two transactions—the purchase in the purchase journal as a credit to the vendor; and the note in the notes payable journal, if one is used, otherwise in the general journal as a charge to the vendor.

Columnar Purchase Journal with Sundries Section

Usually the purchase journal is designed as the book of original entry not only for merchandise purchases but for the purchase *on account* of any other asset or service for which a purchase invoice or a bill is received. Such a purchase journal is provided with special columns and a sundries section for the classification of commodities and services purchased. Economy of space in the purchase journal, as in the sales journal, limits the provision of special columns to those purchases which occur with sufficient frequency to warrant the use of special columns. The infrequent purchase for which a special column is not provided is recorded in the sundries section.

Bills for services such as telephone, gas, and water if paid promptly are recorded in the cash disbursements journal. If

PURCHASE JOURNAL

Date		Account	Terms	F	Purchase Invoice Number	Credit: Accounts Payable	Debit: Purchases Furniture	Debit: Purchases Rugs	Debit: Purchases Radios	Debit: Store Expenses	Debit: Office Expenses
19—											
Jan.	2	Ross Lloyd,	2/10, n/60		101	850 00	400 00	300 00	150 00		
	3	A. R. Hopkins,	2/10, n/30		102	75 00				40 00	35 00
	4	R. McKee,	2/10, n/30		103	120 00					
	5	Office Furniture Company,	2/10, n/30		104	250 00					
	6	Ross Lloyd,	2/10, n/60		105	600 00	350 00	250 00			
	9	Wm. R. Hoffman,	2/10, n/60		106	750 00		500 00	250 00		

PURCHASE JOURNAL

Debit: Advertising	Debit: Transportation Out	Debit: Sundries: Amount	Debit: Sundries: F	Debit: Sundries: Account
120 00				
		250 00		Office Furniture and Fixtures

not paid promptly they are recorded in the purchase journal in order that the amount of all expenses and liabilities may be shown on the books.

Each creditor named in the purchase journal is credited in the accounts payable ledger for the amount which appears in the Credit Accounts Payable column opposite his name. At the end of the posting period the total of the Credit Accounts Payable column is credited to Accounts Payable. The total of each debit column and each item listed in the sundries section are debited to their respective accounts in the general ledger. The folios for column-total postings are indicated by numbers in parentheses placed below the totals. The folios for items posted from the sundries section are placed in the F column of that section.

If the purchase and cash disbursements journals include Cash Purchases columns, such columns are used only for purchases of merchandise made solely for cash.

Columnar General Journal

The general journal which was developed in the preceding chapter, as an incident to the study of the use and operation of subsidiary ledgers and controlling accounts, is a columnar journal. The columnar general journal is the book of original entry for all transactions for which special journals are not provided. In a business which uses only purchase, sales, cash receipts, and cash disbursements journals, whether in columnar form or not, the general journal is the book of original entry for such transactions as:

1. Notes when received and issued.
2. Returns and allowances on purchases and sales when made or received for credit and not for cash.
3. Investments, other than cash, made by the owner in the business.
4. Adjustments.
5. Closing entries.
6. Correcting entries in which cash is not involved.

Columnar Cash Receipts and Disbursements Journals

The cash receipts and the cash disbursements journals illustrated and explained in the preceding chapter are columnar journals.

Other Columnar Journals

If a special journal is used for any one of the following: notes receivable, notes payable, sales returns, sales allowances, sales returns and allowances, purchase returns, purchase allowances, purchase returns and allowances or any other definite class of transactions and is provided with more than one debit column or more than one credit column, such a journal is a columnar journal. For example, if a business receives many customer notes, the use of a notes receivable journal to record their receipt is warranted. If some notes have interest included in their faces and other notes are accepted from indorsers at face values plus accrued interest, or at discounted values, special columns are needed to care for such variations from face values. A columnar notes receivable journal provides not only for the debit to Notes Receivable and the credit to the customer but for the debits and credits to Interest Income. It may be ruled as follows:

NOTES RECEIVABLE JOURNAL

Date Received		Account	F	Credit: Accounts Receivable	Credit: Interest Income	Debit: Notes Receivable	Debit: Interest Income
19__							
Jan.	5	Walter Ronald		1,000 00		1,000 00	
	12	George Watson		505 00		500 00	5 00
	19	Harry Ross		400 00		400 00	
	26	Wm. Hopkins		606 00		600 00	6 00
	28	A. B. Zern Company		995 00	5 00	1,000 00	
	30	T. S. Scull		796 00	4 00	800 00	
				4,302 00	9 00	4,300 00	11 00
				(2)	(49)	(5)	(49)

In practice, the illustrative notes receivable journal is ruled with additional explanatory columns and becomes not only a journal but a notes receivable register. An illustration of a notes receivable register is given in the next chapter. In this chapter the subject matter is limited to the use and operation of debit and credit columns in the various journals.

The entry on January 12 records the receipt from George Watson of a $500.00, 6 per cent interest-bearing note which has run for 60 days, and which George Watson indorsed to the business. Watson was allowed credit for the face of the note plus accrued interest. The $5.00 interest allowed Watson on this note and interest from the date received to the maturity date of the note will be collected from the maker. The entry on January 26 is similar to the one on January 12.

The entry on January 28 records the receipt from the A. B. Zern Company of a $1,000.00 note due in 30 days, which the Zern Company indorsed. The note was accepted at its discounted value, hence the credit of $995.00 to the Zern Company and the $5.00 credit to Interest Income. The debit was to Notes Receivable for $1,000.00. The entry on January 30 is similar to the one on January 28.

The name of each customer listed in the Account column appears on the instrument for which he is credited, as the maker or indorser, if a note, or as the drawee or indorser, if a time draft. Each customer is credited in the accounts receivable subsidiary ledger for the amount shown in the Accounts Receivable column opposite his name. At the end of the month the controlling account Accounts Receivable is credited for the total of the Accounts Receivable column as is Interest Income for the total of its column. Notes Receivable and Interest Income are debited each for the total of its column. The sum of the two Credit columns equals the sum of the two Debit columns.

Summary of the Posting Process

In the set of columnar journals illustrated in this and the preceding chapter, the posting process may be summarized as follows:

1. The total of a column headed General Ledger or Sundries is never posted. The individual items represented therein are posted to the general ledger.
2. The items represented in a column the heading of which is the name of a controlling account are posted individually to the subsidiary ledger and in total to the controlling account.
3. All other columns are posted by totals only, never by items.

Advantages of Columnar Journals

A number of important advantages result from the use of columnar journals:

1. Journalizing is facilitated. Time is saved and the process of journalizing is simplified when some debits and credits may be made by merely inserting amounts in appropriately headed account columns.
2. Posting is facilitated.
   a. Columns are used to indicate to the posting clerk the ledger in which particular postings are to be made, as in the cash and general journals.
   b. When subsidiary ledgers are used, column totals reveal the amounts to be posted to the controlling accounts.
   c. The totals of columns which represent accounts are posted to the accounts instead of the individual items in the columns. If the purchase journal includes a column which represents the account Purchases Department A and there are twenty-five items in the column in a given month, only the total is posted to the account. In every case where it is possible to post by column totals, postings are reduced by the number of items in the column less one.
3. The use of subsidiary ledgers and controlling accounts is facilitated. This advantage was explained under 2*b*.
4. Errors are localized. The sum of the debit columns of a columnar journal must equal always the sum of the credit columns. Since it is customary to test the equality of the debit and credit columns every time a page is filled and the totals are carried forward, as well as at the end of the month when summary postings are made, many mistakes are discovered and corrected prior to the preparation of the trial balance.
5. The analyses of purchases and sales are facilitated. The ease with which entries are recorded in columnar journals and posted therefrom to the ledgers encourages managers of businesses to obtain analyses of purchases and sales by departments, commodities, or other classification. A manager who has analyses of purchases and sales is in a better position to control the operations of a business than

is a manager who does not have such data. In addition, the manager who obtains his analyses of purchases and sales directly from the original entry records receives the information regularly and promptly.

PETTY CASH SYSTEMS

It has been assumed heretofore in this chapter that all cash items were recorded in the cash receipts or the cash disbursements journals. This assumption is correct with respect to cash items received; they are recorded in the cash receipts journal. It may not be entirely correct with respect to cash disbursements.

Cash is the most current asset of a business; it is the one with a most general use and is the asset most likely to be misappropriated. Its receipt and disbursement require, therefore, particular safeguards against misappropriations and against errors.

All cash received should be recorded in the cash receipts journal and deposited daily. The daily deposit feature minimizes the opportunity for cash on hand to be misappropriated by preventing an unnecessary accumulation of cash in the safe or money drawer of the business. It also makes possible a more complete audit of cash receipts.

Cash payments should be made by check, if possible, and recorded in the cash disbursements journal. Payments made by check furnish a permanent record, thereby reducing the opportunity for error or misappropriation and provide the means of a more complete audit of cash disbursements. An indorsed canceled check is also an acknowledgment of the receipt of the payment by the payee. Disbursements which it is impossible or inconvenient to pay by check, for such items as train fare, carfare, postage, telegrams, and expressage, should be paid in coin or currency from a special petty cash fund created for that purpose. The record of such petty cash disbursements depends on the particular petty cash system in use.

Petty Cash Fund

A petty cash fund is cash in the form of coin or currency which is set apart to pay for very small items. The fund is created by a check which is drawn for that specific purpose and the

money when the check is cashed is given to a petty cashier who thereafter is custodian of the fund and responsible for it.

The notion sometimes prevails that a petty cash fund arises as the result of trifling cash receipts. Such is not the case. Cash receipts, no matter how small, are entered in the cash receipts journal and are deposited in the bank. The petty cash fund is established by a check drawn for an amount sufficient usually to take care of petty cash needs for one month.

When the check for petty cash is drawn a charge to Petty Cash is made in the cash disbursements journal. Thus two ledger accounts are used to control cash—the regular Cash account to control the cash in bank and undeposited and the Petty Cash account to represent the cash in the petty cash fund.

Disbursements from the petty cash fund are recorded and posted to the ledgers by various methods of which three will be described, the petty cash book as a journal, the imprest system, and the voucher system.

Petty Cash Book as a Journal

The petty cash book is a book in which are recorded all disbursements from the petty cash fund.

Since petty cash receives its funds from only one source—cash, and the entry for a check drawn for petty cash is recorded in the cash disbursements journal and posted therefrom, it is not necessary to post any debits and credits from the receipts section of the petty cash book. The receipts section is simply a memorandum part of the book, in fact since the amount of money allotted for petty cash purposes is usually well known within a business, the receipts section is very often omitted.

The remaining parts of the book are provided to record disbursements from petty cash and are operated in a manner similar to that described earlier in this chapter for the columnar purchase journal. As an invoice or bill is paid the amount is entered in the Credit Petty Cash column and in one of the Debit columns or in the Sundry Debits section. All postings are by column totals except for the items in the Sundry Debits section, which items are posted individually. The figure 2 in parentheses opposite the total of 31.00 in the Credit Petty Cash column indicates that the Petty Cash account in the general ledger has been credited for that amount on page 2. The figures

PETTY CASH BOOK

Receipts		Date	Explanation	Credit	Debit			Sundry Debits		
Date	Amount			Petty Cash	Office Expenses	Store Expenses	Adver-tising	Amount	F	Account
19__		19__								
Jan. 2	50 00	Jan. 4	Postage	5 00	2 00		3 00			
31	31 00	9	Expressage	1 00		1 00				
		16	Cleaning	3 00	2 00	1 00				
		19	Postage	4 00	2 00		2 00			
		21	Supplies	3 00	3 00					
		23	Supplies	2 00		2 00				
		24	Expressage	1 00				1 00	65	Transportation Out
		26	Printing	4 00			4 00			
		28	To S. Wiley	3 00				3 00	47	Sales Returns and Allowances
		30	Cleaning	2 00	2 00					
		31	Supplies	3 00	1 00	2 00				
			(2)	31 00	12 00	6 00	9 00	4 00		
		31	Balance	50 00						
	81 00			81 00	(70)	(62)	(63)			
Feb. 1	50 00									

in parentheses at the bottom of the Debit columns indicate that the totals of these columns have been debited to their respective general ledger accounts on the pages mentioned. The figures in the F column of the Sundry Debits section indicate the general ledger page numbers of the two accounts which were debited from that section of the book.

The summary postings at the end of the month may be illustrated in two-column general journal entry form, as follows:

Office Expenses	12.00	
Store Expenses	6.00	
Advertising	9.00	
Transportation Out	1.00	
Sales Returns and Allowances	3.00	
Petty Cash		31.00

The system just described uses the petty cash book as a journal in which petty cash disbursements are recorded and from which they are posted to the general ledger. The Petty Cash account in the general ledger after reimbursement appears as follows:

Petty Cash

19__						19__					
Jan.	2		CD-	50	00	Jan.	31		PCB-	31	00
	31		CD-	31	00						

When the balance in the fund is quite low another check is drawn for, or approximately for, the amount spent and is charged to Petty Cash in the cash disbursements journal.

Under any petty cash system the petty cashier should be required to obtain a receipt for each disbursement, if possible. The cash in the drawer plus the receipts should at all times equal the balance of the Petty Cash account.

Imprest System

Imprest system of petty cash is any method of keeping petty cash records by which petty cash is reimbursed for the exact amount disbursed. When the imprest system is used the petty cash fund is often called the *imprest fund.*

The petty cash fund is established by exactly the same method as was just explained, by drawing a check for petty cash pur-

poses for the amount deemed necessary and by a charge to Petty Cash in the cash disbursements journal. Record of disbursements may or may not be kept in a petty cash book. If a petty cash book is used, it is identical in appearance with the one previously illustrated but it is only a memorandum book and not a source of postings. If a petty cash book is not used, the receipts for disbursements obtained by the petty cashier constitute the memoranda of disbursements.

Reimbursement is accomplished by drawing a check to Petty Cash for the exact amount spent and by charging the same amount in the cash disbursements journal to the accounts for which the disbursements were made.

The cash disbursements journal entries for petty cash, assuming the facts and figures used in the previous illustration are as follows:

CASH DISBURSEMENTS JOURNAL

Date		Account	Explanation	F	Debit: General Ledger	Debit: Accounts Payable	Credit: Purchase Discounts	Credit: Cash
19__ Jan.	2	Petty Cash	to start fund		50 00			50 00
Jan.	31	Office Expenses	to reimburse petty cash		12 00			
		Store Expenses			6 00			
		Advertising			9 00			
		Transportation Out			1 00			
		Sales Ret. and Allow.			3 00			31 00

The Petty Cash account under the imprest system is never debited after the initial charge unless the fund proves inadequate for the needs of a period and is increased. Similarly Petty Cash

is never credited unless the fund proves too large and is reduced. Since it is desirable to include in the ledger account balances at the end of a month the disbursements from petty cash during the month, it is customary to reimburse petty cash monthly. The balance of petty cash at the beginning of each monthly period represents, therefore, the amount allotted for petty cash purposes.

Voucher System

The voucher system of petty cash is any method of keeping petty cash records which requires that each disbursement by the petty cashier be evidenced by a voucher signed by a person empowered to authorize petty cash disbursements. Under this system the petty cashier is simply the custodian of the fund. Disbursements are not made without the authority of signed vouchers. Responsibility for the safekeeping and disbursement of the fund is thus placed in the hands of two persons, so that misappropriation requires collusion. Very often the heads of departments or their assistants are authorized to sign vouchers.

Since the voucher system of petty cash requires a signed voucher and, if possible, a receipt for each disbursement, it is not necessary to keep a petty cash book. When the fund is started the check which is drawn is charged to Petty Cash in the cash disbursements journal. Periodically the vouchers are entered in the cash disbursements journal as charges to the accounts for which the disbursements were made and a reimbursing check is drawn to the order of Petty Cash, exactly as illustrated under the imprest system.

QUESTIONS

1. What is a journal? A columnar journal?
2. What do you mean by an analytical sales journal? An analytical purchase journal?
3. Can you suggest different bases for the analysis and classification of sales by the use of a columnar sales journal? Make similar suggestions for the analysis and classification of purchases by the use of a columnar purchase journal.
4. Suppose the sales of an enterprise are classified by departments of which there are five.

a. The sales journal of this enterprise would have to include how many money columns as a minimum?

b. Why might it contain more money columns than the number given in your answer to *a*?

c. Suppose it contained the number of columns given in your answer to *a.* Give the general ledger debits and credits at the end of any month.

d. What would be the main advantage of a sales journal, such as the one considered in this question?

5. *a.* Give a plan for recording cash sales.
   b. Give another plan for recording cash sales.
   c. Give yet another plan for recording cash sales.
   d. Which of these plans do you favor? Why?
   e. If cash sales columns are used in both the sales and cash receipts journals, may the totals be posted? Where? Would the ledger balance, if they were not posted? Why?
6. *a.* How should a sale for a note be recorded? Why?
   b. How should a C.O.D. sale be recorded, if cash is not received for several days?
7. *a.* For what purpose is a sundries section added to a sales journal? To a purchase journal?
   b. Is the total of the sundries section posted? Why?
8. Look at the sales journal illustrated on page 279, then answer the following questions about it:
   a. What number of debit postings are made to the subsidiary ledger for customers?
   b. What number of debit postings are made to the general ledger?
   c. What number of credit postings are made to the general ledger?
   d. What amount (dollars and cents) is posted to the general ledger as debits? As credits?
   e. What amount of debit postings is made to the subsidiary ledger for customers?
9. May a purchase journal be designed to record the purchase of any commodity or service needed by the business? Would not such a journal necessarily contain so many columns that it would be inconvenient to use?
10. What factor would cause you to decide in favor of providing a column for a commodity or service in the purchase journal?
11. Look at the purchase journal illustrated on page 282, then answer the following questions:
    a. Give the accounts, without amounts, which are debited and credited in the general ledger at the end of the month.
    b. Would any other debits or credits be posted from this journal to any ledger?

12. If subsidiary ledgers and controlling accounts for customers and creditors are not used, may an analytical sales journal be used? A columnar purchase journal?
13. What classes of entries are recorded in a general journal?
14. Could controlling accounts and subsidiary ledgers for customers and creditors be used conveniently without
    a. A columnar sales journal?
    b. A columnar cash receipts journal?
    c. A columnar purchase journal?
    d. A columnar cash disbursements journal?
    e. A columnar general journal?
    f. A columnar notes receivable journal?
    g. A columnar notes payable journal?
15. Look at the notes receivable journal on page 284, then tell
    a. The debits to be posted and where.
    b. The credits to be posted and where.
16. Tell where, if at all, the total of each of the following columns is posted and whether debited or credited:
    a. The accounts receivable column in the cash receipts journal.
    b. The purchase discounts column in the cash disbursements journal.
    c. The general ledger column in the cash receipts journal.
    d. The sales discounts column in the cash receipts journal.
    e. The accounts payable column in the cash disbursements journal.
    f. The accounts payable column in the purchase journal.
    g. The accounts receivable column in the sales journal.
    h. The general ledger column in the cash disbursements journal.
17. Give the advantages arising out of the use of
    a. Columnar journals.
    b. Controlling accounts and subsidiary ledgers.
18. Why is it desirable to make payments by check?
19. *a.* If a business operates a petty cash fund, is that fund created by the accumulation of a lot of small receipts?
    b. How is the fund created? For what purpose?
    c. What entry is made when the fund is created? Where?
    d. If a business operates a petty cash fund,
        (1) May it use a petty cash book?
        (2) May it not use a petty cash book? Why?
20. Look at the petty cash book on page 289, then give
    a. The end of the month entry, if the book is used as an original entry book.
    b. The end of the month entry, if the book is not used for posting purposes.
    c. The end of the month entry, if a petty cash book is not kept and the record of petty cash disbursements is made on vouchers.

21. Which method of recording disbursements from petty cash would you recommend, the use of a petty cash journal or the voucher system? Why?

22. Under the voucher system of petty cash, if the petty cash drawer is audited at any time during a month, what should be found there?

23. Under the imprest system of posting petty cash

a. How much cash is in the petty cash drawer the first of each month? Why?

b. When might the Petty Cash account receive a debit after the fund is started? A credit?

24. Suppose the petty cash fund is larger than necessary, so the fund is reduced $50.00. What entry or entries should be made and where, if the voucher system is used?

CHAPTER XX

OTHER RECORDS

In earlier chapters, particularly those on business papers and practices, it was noticed that there are many records of transactions other than those made in the journals and ledgers. For example, the book entries for purchases are supplemented by purchase orders and purchase invoices; sales entries are supported by sales invoices; and cash entries for disbursements are represented by checkbook stubs or petty cash book entries, petty cash receipts, or vouchers. Such records and any others which are provided to supplement the regular entries in order that complete and detailed information about the accounts of an enterprise may be available are known as auxiliary records.

Auxiliary Record Defined

An auxiliary record is one which supplements the journals and ledgers of an enterprise.

The title *auxiliary record* implies that such a record is primarily supplementary in character; oftentimes, however, it is not only supplementary but actually subsidiary in the sense that it supplies detailed explanations of the balance of a ledger account. Auxiliary records are many and varied, so just a few which are common to many enterprises are explained in this chapter as illustrations of the usefulness of this kind of record.

Inventory Sheet

Previous discussions have emphasized the necessity for periodic inventories. Since inventories disclose not only the value of goods on hand but are necessary to determine the cost of goods sold, they are of great importance in accounting and should be taken and recorded in a manner and on forms which will insure accuracy. Inventory sheets should be designed to indicate for

each department, style or brand, the items on hand, their quantity, the unit cost price and the total amount. The sheets should also provide space for signatures so that responsibility for each step in the inventory process may be localized.

The following illustration of an inventory sheet is designed to make it serviceable in many kinds of enterprise.

Department________________

Date______________

Location____________________ Sheet No.____________

Description	Quantity	Unit Cost	Total

Called By________ Entered By________ Priced By________ Extended By________

Inventory sheet.

If the inventories of an enterprise are not valued on a cost basis but on a cost or market whichever is lower basis and it is desired to show for each item in the inventory the values on both bases, the additional facts may be provided for by a few extra columns on the inventory sheets, as shown at the top of page 298.

An illustration of the computation of inventory value on the cost or market whichever is lower basis is given on page 163.

The inventory sheets constitute a permanent and valuable auxiliary record to the inventory entries set up on the books.

Department__________

Date__________

Location__________ Sheet No.__________

Description	Quantity	Cost		Market		Lower of Cost or Market	
		Unit Price	Total	Unit Price	Total	Unit Price	Total

Called By________ Entered By________ Priced for Cost________ for Market________ Extended By________

Inventory sheet.

Insurance Register

In thinking of the Prepaid Insurance and the Insurance accounts which appear on the books the student is reminded that an enterprise of any size, because of the variety and amount of its insurance needs, purchases its insurance protection from many different insurance companies, for different amounts, and for different periods. The rates and premiums on the various kinds of policies also vary. An enterprise may insure its buildings against fire loss in the amount of $100,000.00. The insurance may be given to one insurance company, to five companies in the amount of $20,000.00 each or it may be distributed among any number of companies for varying amounts with a total of $100,000.00. This insurance protection may have been procured for one year or for a term of two, three, five, or any other number

(Left Page)

INSURANCE REGISTER

Date of Policy	Policy No.	Company	Risk Covered	Amount	Term	Expiration Date	Premium	
							Unexpired Jan. 1 (This Year)	Paid (This Year)
Jan. 2, 19__	6183	Eastern Insurance Company	Bldg. Fire	20,000	5 yr.	Jan. 2, 19__	120.00	
Jan. 2, 19__	1945	Penna. Fire Insurance Company	Fur. Fire	6,000	5 yr.	Jan. 2, 19__		60.00
Apr. 1, 19__	19462	Standard Casualty Company	Auto. Liab.	50–100,000	1 yr.	Apr. 1, 19__		48.00

INSURANCE REGISTER

(Right Page)

Monthly Insurance Charge												Adjusting Data		Remarks
Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Premium Expired (This Year)	Premium Unexpired Dec. 31 (This Year)	
3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.37	40.00	80.00	
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00	48.00	
			4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	36.00	12.00	

of years. It is quite possible that this insurance was not all taken on the same date. The buildings may have been built or acquired on different dates and the insurance placed accordingly. It is possible some of the policies were taken on one-year terms, others for three years, others for five years, and so on. The enterprise may have built up, similarly, $10,000.00 of fire-insurance protection on its furnishings, $5,000.00 of burglary and theft protection, and $30,000.00 on its stock of merchandise. It may carry tornado, plate-glass, fidelity, employers' liability, boiler-explosion, automobile, and other forms of insurance protection.

In order to keep a record of the pertinent facts of each policy, its date, amount, premium, term, risk covered, date of expiration, and so on, and to have a comprehensive picture of the insurance in force from which analyses may be made and adjusting data gathered, it is customary to keep an insurance register as an auxiliary record.

The first policy entered in the insurance register (Eastern Insurance Company policy 6183) had been in force for two years when it was listed in the register on January 1, of the current year. The total premium had been $200.00 of which $80.00 had been charged off in the two preceding years and $120.00 remained to be charged to the current and the two following years. For purposes of adjusting the books the register furnishes insurance costs on a monthly as well as an annual basis.

The register here illustrated is intended for use as an auxiliary record, nevertheless the total of the last column must agree on December 31 of any year with the balance shown in the Prepaid Insurance account on the ledger after the insurance adjusting entry is recorded and posted. To that extent the register is not only a supplementary but a subsidiary record to the Prepaid Insurance account; it supplies an explanation of the balance of that account.

It would be a simple matter to convert this auxiliary record into a book of original entry from which postings to the ledger are made. Since the policies of the company are probably placed through insurance brokers to whom the premiums are owed at the time the policies are received and listed in the register, it would be necessary to add a column to show the names of the brokers. If so used the entries at the time insurance

is purchased would not be made in the journal or purchase book and the register would be the source of postings. Debits would be made from the register to Prepaid Insurance for the total of the column which is titled 'Paid This Year' under the Premium section. Credits would be made to the brokers' accounts in the accounts payable ledger for the amounts in the 'Paid This Year' column, and the total of that column would be credited to the Accounts Payable control account in the general ledger. If used as a book of original entry it would be possible to post the adjusting entry which debits Insurance and credits Prepaid Insurance from the register. It is more desirable, however, to include the insurance adjusting entry with the others in the general journal; then it is not so apt to be overlooked.

Notes Receivable Register

If the receipt of notes and time drafts is an infrequent occurrence in an enterprise there is little need to supplement the record kept by the usual entries. Memoranda on a desk calendar pad will serve as sufficient additional records especially as reminders of due dates. If the receipt of such instruments is a common occurrence, the use of a notes receivable register is advisable. The register will provide a complete history of each paper, will indicate whether it is on hand or has been discounted, and will serve as a reminder of its maturity date.

In the average enterprise the use of the notes receivable register as an auxiliary record is satisfactory but in an enterprise which receives a great many notes it is desirable to use the register as a notes receivable journal. To do so saves time in that the entry for a note is made at the same time and in the same place as the complete memorandum of it. The illustration which follows is that of a notes receivable register used as a book of original entry, hence called a notes receivable journal. If only an auxiliary record is required the Debit, Credit, and F (folio) columns of the illustrated book are omitted and a column for amount is added.

The customers who send in notes or drafts are listed in the third column; the page numbers in the F column indicate that the credits have been posted to the ledger. Whether the instrument is a note or a draft is shown in the column headed *N* or *D*. In the column titled *Maker or Drawee* is placed the name of the

(Left Page) NOTES RECEIVABLE JOURNAL

Date Received	Date of Note	Received From	F	Credit: Accounts Receivable	Credit: Interest Income	Debit: Notes Receivable	Debit: Interest Income	N or D	Maker or Drawee	Indorser or Drawer
Feb. 2, 19__	Dec. 18, 19__	H. Blair	61	400.00		400.00		N	G. Bacon	H. Blair
Feb. 2, 19__	Jan. 24, 19__	W. Harris	93	500.00		500.00		N	O. Denny	W. Harris
Feb. 2, 19__	Feb. 1, 19__	W. Ronald	113	1,000.00		1,000.00		N	W. Ronald	
Feb. 21, 19__	Jan. 22, 19__	G. Watson	129	502.50		500.00	2.50	D	R. F. Edwards	G. Watson
Feb. 27, 19__	Feb. 26, 19__	R. Edel	64	891.00	9.00	900.00		N	R. Edel	
				3,293.50	9.00	3,300.00	2.50			
				(2)	(31)	(5)	(31)			

NOTES RECEIVABLE JOURNAL (Right Page)

Where Payable	Term	Int. Rate	Maturity Date: Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Disposition: Date	Method
3d Nat'l.	60 days			16											Feb. 16	Paid
1st Nat'l.	30 days			23											Feb. 23	Paid
2d Nat'l.	30 days				3										Feb. 18	Discounted
4th Nat'l.	90 days	6%				22										
Union Tr.	60 days					27										

person who is obligated to pay the instrument at maturity because he had signed it as the maker in the case of a note or had accepted it in writing as the drawee in the case of a draft. In the Indorser or Drawer column is shown the name of the person, if any, who is contingently liable as the indorser, if a note, or as the drawer or indorser, if a draft.

The first transaction illustrated represents the receipt by the enterprise of a $400.00 note to be applied to the account of H. Blair. The note was drawn by G. Bacon in favor of H. Blair but was indorsed by Blair to the order of the business.

The second transaction is similar. W. Harris indorsed and sent in for credit a $500.00 note drawn in his favor by O. Denny.

The third transaction is the record of the receipt of a note for $1,000.00 from W. Ronald. It will be noticed that the Disposition section of the notes receivable journal indicates that this note was discounted on February 18, while the two preceding notes were held to maturity when they were paid in full.

The fourth illustration is the record of the receipt from G. Watson of a $500.00, 6 per cent interest-bearing draft drawn by Watson in his own favor on R. F. Edwards. The draft was accepted by Edwards on January 22 from which date interest accrued on it. It was necessary, therefore, when the acceptance was indorsed to the order of the business on February 21 by Watson, to allow him credit not only for its face amount, but for the accrued interest as well. Since the $2.50 credit allowed Watson because of the accrued interest will be returned to the business at the maturity of the note, it was charged to Interest Income. The debits and credits made for this transaction presented in the form of a two-column general journal entry are as follows:

Notes Receivable	500.00	
Interest Income	2.50	
G. Watson		502.50

The last transaction illustrated represents the following facts: R. Edel owed the business $891.00 and the amount was due. He could not pay in cash and offered his 60-day $900.00 note which was accepted at its discounted value. Notes Receivable was debited for $900.00, the face value of the note, but R. Edel was credited for only $891.00. The necessary $9.00 balancing credit was made to Interest Income.

The figures in parentheses below the double rulings of the Debit and Credit columns indicate the general ledger page numbers of the accounts to which these column totals were posted. The summary postings to the general ledger at the end of the month may be pictured as follows:

Notes Receivable	3,300.00	
Interest Income	2.50	
Accounts Receivable		3,293.50
Interest Income		9.00

The notes receivable journal as illustrated is a book of original entry solely for notes and time drafts received. Entries for the disposal of these instruments are made in the other journals such as the cash receipts and general journals. The Disposition section of the notes receivable journal, in fact all columns except the ones for Date Received, Debit, Credit, F, and Received From, are for explanatory or auxiliary information.

If an enterprise issues sufficient notes and accepts enough time drafts that a complete record of them in convenient form is desirable, a notes payable book either as a register or as a journal may be provided. Such a book is ruled in the same general form as the notes receivable book with suitable changes in column headings.

Payroll

It is necessary in most businesses to keep some formal record of the compensation paid to each employee and a payroll record of the employees in each department. The necessary information may be recorded on forms similar to those on pages 306 and 307. Both of these forms are auxiliary records rather than books of original entry. In most businesses payroll deductions are necessary for social security taxes (federal old-age benefits), for federal income tax required to be withheld by the employer, for bond purchases, for various insurance commitments, and for other reasons. Some form of payroll earnings record is necessary for each employee to determine the make-up of each check given; the annual summary of gross earnings and amount of taxes withheld, which the federal act requires the employer to furnish each employee; the liability of the business to the federal government for amounts withheld; the amounts voluntarily deducted for

the purchase of savings bonds; the purchases made from such deductions; and miscellaneous deductions for advances, group insurance, and hospital insurance. The Payroll Earnings Record of Charles A. Price appears on page 306. It will be noted that he is also an employee of the department illustrated in the Payroll record on page 307.

The Payroll record shows information similar to the Payroll Earnings Record for each employee of a given department. Where employees have authorized deductions such as for insurance, many businesses make such deductions only in the last payroll of a given month.

When payment is made by check it is desirable to open a special bank account for payroll purposes. The check drawn and charged in the cash disbursements journal to Payroll is deposited in a special payroll bank account. Checks against this special account are drawn to the order of the employees and are listed by number and name of employee in the Payroll record. This procedure relieves the person who usually signs checks from the necessity of signing the many pay checks since that task can be delegated to another who is responsible for the payroll bank account.

Whether wages and salaries are paid by check or in currency and coin, it is customary on paydays to make only one entry in the cash disbursements journal, a charge to Payroll. Record of the payments by individuals and by departments is kept in the Payroll record.

In order that the Payroll account be charged with gross earnings, the following entry would be made for each payroll to supplement the charge to Payroll from the cash disbursements journal:

Payroll	xxxx	
Old-age Pension Taxes Payable		xxxx
Employees' Income Tax Withholding		xxxx
Group Insurance Payable		xxxx
Hospital Insurance Payable		xxxx
Savings Bonds Withholding		xxxx

To record the liabilities arising out of deductions for the payroll period ended (date).

At the end of each month the gross payroll figures as shown in the Payroll record are summarized and distributed to the

PAYROLL EARNINGS RECORD

Name Charles A. Price	Clock Number 803	Department Number 8
Address 6926 Rosewood Street	Social Security No 497-48-1946	Withholding Exemptions 3
Lawndale 8, Pa.	Telephone Mayflower 3500	Next of Kin Jean S. Price (Wife)

Line No.	End of Period	Earnings: Regular	Earnings: Over-time	Earnings: Total	Deductions: Social Security	Deductions: Income Tax	Deductions: Advances	Insurance: Group	Insurance: Hospital	Savings Bonds: Deducted	Savings Bonds: Pur-chased	Savings Bonds: Balance	Deductions: Total	Payments: Amounts	Payments: Check No.
Brt Fwd															
1	Jan. 7	50 00		50 00	50	3 00				7 50		7 50	11 00	39 00	9214
2	14	50 00	6 00	56 00	56	4 00				7 50		15 00	12 06	43 94	9611
3	21	50 00	6 00	56 00	56	4 00				7 50	18 75	3 75	12 06	43 94	9986
4	28	50 00	10 00	60 00	60	4 70		2 10		7 50		11 25	14 90	45 10	10283
5	Feb. 4	50 00	5 00	55 00	55	3 80				7 50	18 75		11 85	43 15	10601
6	11	50 00		50 00	50	3 00				7 50		7 50	11 00	39 00	10912

PAYROLL From January 8, 19A to January 14, 19A

Employee		Earnings			Deductions							Payments	
								Insurance					
No.	Name	Regular	Over-time	Total	Social Security	Income Tax	Advances	Group	Hospital	Savings Bonds	Total	Amounts	Check No.
801	Jackson, Frank W.	80 00	10 00	90 00	90	10 00				3 75	14 65	75 35	9609
802	Chase, James R.	65 00	5 00	70 00	70	8 20				7 50	16 40	53 60	9610
803	Price, Charles A.	50 00	6 00	56 00	56	4 00				7 50	12 06	43 94	9611
804	Mann, Vincent W.	60 00	6 00	66 00	66	5 60				7 50	13 76	52 24	9612
805	Edwards, Robert A.	50 00		50 00	50	6 60				3 75	10 85	39 15	9613
806	Long, Joseph W.	35 00	3 00	38 00	38	2 90				3 75	7 03	30 97	9614
807	Trimble, Willis S.	42 00	3 00	45 00	45	2 10				7 50	10 05	34 95	9615

general ledger accounts, which should be charged by an entry such as

Sales Salaries	xxxx	
Delivery Salaries	xxxx	
Office Salaries	xxxx	
Factory Wages	xxxx	
Payroll		xxxx
To record the payroll distribution (gross earnings) for the month of ______.		

If the Payroll record is an auxiliary record, the above two entries would be made in the general journal. If the Payroll record is used as a source of postings, they would be posted directly from the Payroll record to the ledger.

To prevent padding of the payroll, the Payroll record of each department should be inspected and signed by the foreman or manager.

The federal old-age pension tax is imposed on both the employer and the employee; the employer is responsible for withholding the tax from the employee and remitting such amounts with the tax payable by himself. The employer is required to pay the tax so computed to the Collector of Internal Revenue every calendar quarter. The rate used in these forms and entries is 1 per cent, but it may be changed by Congress at any time. On a payroll of $20,000.00 for the month of May, the following entry would be necessary to record the liability of the employer for his share of the old-age pension tax:

Social Security Taxes	200.00	
Old-age Pension Taxes Payable		200.00
To record the employer's liability for the month of May.		

Although both state and federal laws must be considered, unemployment funds are administered by the states. The federal rate is 3 per cent on employee earnings up to $3,000.00 during the 12-month period. State and federal unemployment taxes are paid by the employer, who can take credit against the federal tax for payments made to the state up to 90 per cent of the total tax liability. On a payroll of $20,000.00 the following entry is typical to record the liability arising out of unemployment taxes:

Social Security Taxes	600.00	
Unemployment Taxes Payable—State		540.00
Unemployment Taxes Payable—Federal		60.00
To record the liability for the month of May of 0.3 per cent to the Collector of Internal Revenue and 2.7 per cent to the state.		

Social security taxes may be treated as a general expense in a relatively small business but should be apportioned among the departments in a business of any size. The debits may be to Social Security Taxes—Sales, Social Security Taxes—Office, and Social Security Taxes—Factory.

The payroll deductions have been ignored in the problems in this text because the authors did not wish to complicate each payroll when state and federal laws may change with frequency, particularly with respect to rates of withholding.

Plant Ledgers

In a business of any size the general ledger accounts for fixed assets, particularly those for buildings and the various classes of equipment such as store furniture and fixtures, office furniture and fixtures, delivery equipment, and machinery should be supported by additional records. These records may be auxiliary ones, but it is desirable that they take the form of subsidiary ledgers which supply detailed information about the balances of the general ledger accounts which control them. The Store Furniture and Fixtures account in the general ledger, for example, includes in its balance the figures for such items as showcases, counters, scales, bins, and other equipment used for the display or the selling of goods. Such items may have been acquired on different dates for different amounts and may have varying lives. If a complete history of each piece of property is desired, as it most certainly should be, it is obvious that the formal entries for plant asset items must be supplemented by additional records.

The detailed record of a physical property should show the kind of item, the date acquired, its cost, from whom acquired, its location, its book value, any significant occurrences which have affected it, and how it was disposed of. Such a record is exceedingly valuable in the settlement of an insurance claim, in supplying details to support periodic adjustments, and in

PLANT LEDGER CARD

Cost:		Account	Delivery Equipment	Our No.	D4
Invoice	$1,000.00	Description	6 Cylinder Poole Truck	Manf'g No.	1AE45948
Freight	100.00	Location	6th Avenue Garage	Manufacturer	Poole Motor Co.
Installation	0	Estimated Life 4 years	Annual Depr. $240 00	Seller	Myers Motor Co.
Total Orig. Cost	$1,100.00	Estimated Depr. Rate 21.82 per cent	Monthly Depr. $ 20 00	Date Acquired	7/1/19__
Estimated Scrap Value	140 00				
Original Amount to be Depreciated	$ 960 00				

Date	Explanation	Amount Debited	Reserve for Depr. Cumulative	Net Book Value	Repairs: Date	Repairs: Nature of Repairs	Repairs: Cost	Disposal: Date	Disposal: Method	Disposal: Amount Received
7/ 1/19__	Purchased New	1,100 00		1,100 00	9/8/19__	Clutch and Valves	35 00		(Sale, Abandonment, Trade In, etc.)	
12/31/19__			120 00	980 00					Less: Net Book Value	
12/31/19__			360 00	740 00					Gain (or Loss)	

Remarks

(All information concerning overtime or other abnormal operating conditions which affect depreciation charges)

furnishing information for the federal income-tax return when the asset is disposed of.

The illustration, as shown on page 310, is that of a card or sheet in a delivery equipment subsidiary ledger. It indicates the kind of information which should be kept in any of the subsidiary plant ledgers.

Other Auxiliary Records

Without further illustration mention may be made of other auxiliary records which meet particular needs.

An enterprise which owns considerable real estate as an investment needs an additional record to supplement its real estate account. This record should take the form of a subsidiary ledger comparable to the plant ledgers previously described. Each different piece of real estate should be represented by a card or sheet which shows its description, location, date acquired, cost divided between land and buildings, book value, and so on.

If real estate is rented to different people the enterprise needs another record to keep the names of the tenants, description of properties rented and vacant, dates of leases, terms of leases, and monthly rentals. This auxiliary record may be operated as a *tickler* to serve as a reminder of the dates when the various rents are due. The tickler feature may be provided, if the record is in book form, by twelve columns similar to those used in the notes receivable journal to show maturity dates; if the record is kept on cards, they may be filed under the days of the month when the rents are due.

If an enterprise or an individual owns a number of different stocks and bonds the general ledger account Investments should be supplemented with a record to show the details of each different investment owned. Still another record is necessary as a memorandum of the dates when the different dividends and interest items are due and the amounts in each case, also to serve as a place to register the date of payment of each particular dividend or interest amount received.

Auxiliary records in connection with sales are very common. In addition to the formal entries and sales invoices, there are records to obtain an analysis of sales by products, territories, and salesmen. Similarly Purchases, the various expense, and other accounts are supplemented by auxiliary records which

are necessary in a well-organized accounting system. Without adequate auxiliary and subsidiary records the management of an enterprise is not obtaining the full measure of information it may expect and require of its accounting departments.

QUESTIONS

1. *a.* Distinguish an auxiliary record from a journal entry.
   b. Name some auxiliary records.
   c. What useful purpose is served by auxiliary records?
2. Look at the inventory sheet illustrated on page 298 and explain the purpose of the provisions for signatures or initials at the bottom.
3. Inventory sheets are auxiliary records to what entries?
4. *a.* Does the Prepaid Insurance or the Insurance account on a ledger supply all the information needed by an enterprise with respect to its insurance? Why?
   b. Name some facts which an insurance register would show.
   c. Are all policies taken at the same time? Why not?
   d. Is an insurance register serviceable in connection with
      (1) Expirations? How?
      (2) End of the period adjustments? How?
      (3) Decisions to increase or decrease the amount of insurance in force? How?
5. What purposes are served by a notes receivable register?
6. *a.* Why is it important to know the exact date a note matures?
   b. Why is it important to know if there are any indorsers on a note?
7. *a.* In what respect does the *maker* of a note bear the same relationship to the holder as the *drawee* of a draft?
   b. In what respect does the *drawer* of a time draft bear the same relationship to the holder as the *indorser* of a note?
8. Under what condition is the use of a notes payable register desirable?
9. Who do you think has greater need for a notes receivable register —a manufacturer of heavy machinery or a retailer who operates a dry-goods store? Why?
10. Can you see any advantages arising from the use of a payroll register and payroll earnings records?
11. If the cash disbursements journal entry on paydays is a charge to Payroll and a credit to Cash, how and when are the various salary and wage accounts charged?
12. Suppose your university owns 1,000 office desks which are distributed throughout its various buildings.
    a. Can you see any advantage which would come from an auxiliary record for each desk which would show the date of purchase, the cost price, and the present location?

b. If the desks referred to in *a* are owned by a profit-seeking enterprise, is such an auxiliary record equally desirable? Should it show more information than is suggested by *a*? Why?

13. Explain the plant ledger card illustrated on page 310.

14. Suppose an individual owned a number of dwellings for investment purposes.

a. In what account is his income from the properties shown?

b. Would he need an auxiliary record to the account given in answer to *a*? Why?

c. In what account are the property cost values shown?

d. Would he need an auxiliary record to the account given in answer to *c*? Why?

15. Suppose an individual owns shares of stock in 40 different corporations and bonds of 25 other corporations.

a. In what account or accounts would these securities be recorded?

b. Should he have an auxiliary record for the account or accounts given in answer to *a*? Why?

c. How would the individual know if he received all dividends and interest to which he is entitled? Suggest a form of auxiliary record for this purpose.

CHAPTER XXI

PARTNERSHIPS

The discussion thus far in this book has been limited to a consideration of the accounting requirements of an enterprise owned by one person—a sole proprietorship. The rules and methods which have been developed are general in character and apply to any type of ownership organization. An organization with more than one owner presents some new problems, however, to the consideration of which this and the following four chapters are devoted. Problems peculiar to the partnership type of organization will be covered in this and the next chapter, while those peculiar to the corporate form of organization will be considered in the following three chapters.

The additional accounting problems of an enterprise with more than one owner relate solely to the proper treatment of the accounts with the owners of the enterprise.

Definition

A partnership is defined by the Uniform Partnership Act as "an association of two or more persons to carry on, as co-owners, a business for profit."

The above brief legal definition needs explanation to supply an adequate conception of a partnership. A partnership is a contract relationship entered into by two or more persons who agree to combine their effects, labor, and skill, or some or all of these, in a lawful business, trade, occupation, or profession and to divide the profits, as such, between them.

The partners need not contribute equal amounts, in fact some may not contribute any property. The experience and skill of a partner may be his contribution and may be as important to the success of the partnership as a large property investment of another partner. The property of a partner is no longer his after it is invested; it belongs to the partnership and is held by the partners as co-owners. The liability of a partner

for the debts of the partnership is not limited to the amount of his investment; usually it is unlimited, so that the personal private wealth of each partner is back of the debts of the partnership. The partners, in the absence of an agreement to the contrary, share equally the net profits or losses. The death or withdrawal of a partner terminates the partnership.

It is not always an easy matter to determine whether or not a partnership exists. A partner is at once a principal and an agent for his partners in matters which come within the range of the partnership business. Each partner has an equal right to assist in the management of the partnership, unless limited by definite agreement of the partners, and each is entitled to an equal share of the profits, unless otherwise arranged. Co-ownership, mutual agency, voice in management, and profit sharing as owners are very important features in determining whether or not the relationship constitutes a partnership, although any one of these features in itself may not be conclusive proof.

A partnership is known as a *firm* and is the type of organization chosen by the owners of many small enterprises with limited capital needs. It is also the form of organization selected by the owners of many professional enterprises, such as engineering, legal, and accounting offices which are service organizations whose relations to their clients carry very personal responsibilities.

Advantages of a Partnership

Compared with a sole proprietorship there are certain advantages inherent in the partnership.

1. A greater amount of capital is possible.
2. The service, as owners, of persons of marked abilities, varying experience, and different degrees of wealth may be obtained.

Disadvantages of a Partnership

There are some features of a partnership which prove a disadvantage to this form of organization.

1. The unlimited liability for the debts of the firm makes some persons reluctant to become a partner.
2. The mutual-agency feature, whereby the acts of a partner which come within the scope of the partnership business

are binding on his associates, makes some persons reluctant to enter into a contract under which they will be so bound.
3. A partnership interest is not transferable readily. Without the consent of the remaining partners an interest in a partnership cannot be sold to another person.
4. Misunderstandings and disputes may arise among the partners especially with regard to the management policy and the distribution of profit or loss.
5. The life of a partnership is limited. It is terminated with the legal incapacity, the withdrawal, or the death of a partner.
6. A partnership cannot obtain as much capital as a corporation. (Corporations are discussed in later chapters.)

Articles of Partnership

It should be evident from the limited discussion thus far given that a partnership is an association which should not be entered into lightly but only after due deliberation and investigation of the other proposed partners. A partnership contract may be oral or written. In view of the very great possibility of misunderstanding and consequent disagreement among the partners, the partnership agreement should not be an oral one. The contract, which is called the *articles of partnership,* should be prepared in writing. This agreement if carefully drawn will indicate the intentions of the partners with respect to many points, which, if not decided in advance, may be the cause of friction. Some of the points to be covered by the articles are

1. Date.
2. Names of partners
3. Name of the firm.
4. Location.
5. Nature of the business.
6. Date of commencement and term of contract, unless indefinite.
7. Statement of the contribution to be made by each partner and the date on which it is to be made. If property other than cash is to be contributed, the value at which it is to be placed in the records should be approved in

advance by all partners; subsequent losses or gains arising from such property are shared by all. Similarly, liabilities assumed by the partnership should be approved by all partners.

8. Method of sharing profits and losses. On this point the following questions should be considered:
   a. Is interest to be allowed on capital? If so, on what basis?
   b. Are salaries to be allowed partners? If so, how much and when are they to be paid?
   c. What basis is to be used to distribute profits or losses whether or not interest and salaries are factors?
   d. What is the status of profits left in the business?
9. Statement of limitation on withdrawals. If merchandise is withdrawn for personal use is it to be taken at cost? Are cash or other asset withdrawals to be considered as impairing capital, or as withdrawals of a portion of the accruing profits?
10. A statement of the division of duties among partners, the amount of time to be given to the firm by the partners, the delegation of the right to sign contracts, checks, and other business papers.
11. A statement of the method of accounting to be employed and the length of the fiscal period. A statement which provides for a periodic review of the records by a certified public accountant is a very desirable feature.
12. A statement of the procedure to be followed in case of voluntary or involuntary dissolution.
13. A statement with respect to the arbitration of disputes.
14. A statement of the amount of insurance to be carried by the firm on the lives of the several partners, if any.
15. A provision to prohibit any partner from acting as surety, accommodation indorser, or bondsman for an outsider without the written consent of all members.

Each partner should sign the articles and obtain a copy of them. The accountant for the firm will be guided by the agreement in opening the books, distributing the profits or losses, and in recording other matters which affect the partners' accounts.

Kinds of Partnerships

From the standpoint of liability of partners there are two kinds of partnerships:

1. The general partnership, which is sometimes spoken of as the common law, old-fashioned, or ordinary partnership, in which each partner has unlimited liability for the debts of the firm.
2. The special or statutory partnership which must be organized under the authority of the statute of a state and under which the liability of some but not all of the partners may be limited to the amount of their investments.

Kinds of Partners

It will be noticed that there are at least two kinds of partners, general and limited. The general partner is one with the right to share in the management of the firm and with full liability for its debts. The limited partner, who is also known as a special partner, is one with limited liability for the debts of the firm. There are other kinds of partners—silent, secret, and nominal; but for a definition of these classes as well as for a more complete discussion of the legal aspects of partnerships the student is referred to books on business law.

General Partnership Rules

Unless provision is made to the contrary in the articles of partnership, partners are bound by the following general rules:

1. Each partner has an equal right to assist in the management of the enterprise.
2. Profits and losses are shared equally.
3. Losses are divided on the same basis as profits.
4. Interest
   a. Is not allowed on capital, whether investments of the partners are equal or unequal.
   b. Is not to be charged on withdrawals, although it may be allowed on capital at the beginning of the period.
5. Salaries are not allowed, regardless of any inequality in time spent by the partners for the benefit of the firm and without regard to the varying abilities of the several partners.

Partnership Balance Sheet

The balance sheet of a partnership differs from that of a sole proprietorship in the net worth section only. It is essential that the equity of each owner be stated clearly and the total equity of the several partners be extended as the net worth of the firm.

Partnership Profit and Loss Statement

A partnership profit and loss statement is exactly the same as the profit and loss statement of a sole proprietorship except for a supplementary section at the bottom of the statement in which is shown the distribution of the net profit or loss among the partners.

In the following illustration of the supplementary section which appears at the bottom of a partnership statement of profit and loss, it is assumed that the articles of partnership provide that

1. Each partner is to be allowed 6 per cent interest on his investment at the beginning of the year.
2. That partner East is to be allowed a salary of $200.00 a month and partner West a salary of $300.00 a month.
3. That any profit remaining or loss resulting after the interest and salary allowances is to be divided equally between the partners.

At the beginning of the year partner West's investment was $24,000.00 and partner East's was $12,000.00. The net profit for the year was $8,000.00.

Net Profit			$8,000.00
Distribution:			
Interest on Capital:			
N. O. West	$1,440.00		
S. O. East	720.00	$2,160 00	
Partners' Salaries:			
N. O. West	$3,600.00		
S. O. East	2,400.00	6,000 00	8,160.00
Excess of Interest and Salaries over Net Profit			$ 160.00
Charged to:			
N. O. West		$ 80.00	
S. O. East		80.00	160.00

The statement of profit and loss which includes the above supplementary section is in accord with the provisions of the federal income-tax law which do not permit either interest on invested capital or salaries of partners to be deducted as expenses of operation. The statement shows that the net profit of the firm is $8,000.00. The supplementary section indicates how that amount is distributed between the partners by means of interest allowance, salary, and an equal distribution of the resulting figure.

Distribution of the Net Profit or Loss

The articles of partnership may provide for any method of distributing the net profit or loss which the partners feel to be equitable. In the absence of a special plan for distributing a loss, any special plan provided for the distribution of profits applies. Among the more general plans for profit distribution are the following:

1. Equal distribution.
2. Fixed percentages—other than equal.
3. On the basis of net investments at the end of the period.
4. On the basis of average capital investments for the period.
5. Partly as interest and partly by fixed percentages.
6. Partly as salaries and partly by fixed percentages.
7. Any combination of the above plans.

To illustrate these different plans it is assumed that N. O. West and S. O. East formed a partnership on January 1 of the current year, investing $24,000.00 and $12,000.00 respectively. During the year Mr. West withdrew $300.00 cash on May 1, and $500.00 of merchandise of which $100.00 was on March 1 and $400.00 was on September 1. Mr. East withdrew $500.00 cash on July 1. The net profit for the year is $8,000.00.

1. *Equal Distribution.* If the articles of partnership of West and East made no reference to a plan of distributing profits they are to be divided equally. Suppose that is the case or that the agreement provides for an equal distribution.

The closing journal entry to distribute the balance of the Profit and Loss account is

Profit and Loss	8,000.00	
N. O. West, Drawing		4,000.00
S. O. East, Drawing		4,000.00
To distribute the net profit for the year equally.		

2. *Fixed Percentages—Other than Equal.* The articles of partnership may provide for an unequal distribution of the net profit expressed in terms of fixed percentages to be applied each fiscal period. Assume that Mr. West and Mr. East have agreed to a 60/40 distribution respectively. Under this plan Mr. West is entitled to $4,800.00 and Mr. East to $3,200.00.

The equivalent of this plan is found if the agreement provides that profits are to be distributed according to the original contributions of the partners, if they happen to be unequal. As Mr. West contributed $24,000.00 out of the $36,000.00 of invested capital, under this plan his share of the profits would be 2/3 or $5,333.33 and Mr. East who contributed $12,000.00 would be entitled to 1/3 or $2,666.67. If profits are not withdrawn by all partners, if added investments and withdrawals are not made in proportion to the original investment and at the same time by the several partners, this method is not an equitable basis for distributing profits.

3. *On the Basis of Net Investments at the End of the Period.* In order to make some allowance for changes in the equities of the partners during the period, the profit distribution percentages are sometimes computed on the relationship that exists between the net investments of the several owners on the date of distribution.

The net investments of Mr. West and Mr. East in the illustration are determined as follows:

	Mr. West	Mr. East
Investment, January 1	$24,000.00	$12,000.00
Withdrawals	800.00	500.00
Net Investment, December 31	$23,200.00	$11,500.00

Under this plan Mr. West is entitled to 232/347 of the net profit of $8,000.00 or $5,348.70 and Mr. East is credited with 115/347 of $8,000.00 or $2,651.30.

This plan affects the profit distribution figures to the partners by reason of changes in their equities, but it is a weak plan in

that the time element is not provided for. No consideration is given to the length of time that capital is employed in or has been out of the enterprise.

4. *On the Basis of Average Capital Investments for the Period.* This plan provides for the distribution of profits on the basis of the average capital investment of each partner. If Mr. West and Mr. East had agreed on this plan the computation would be made as follows:

N. O. West

Date	Withdrawals	Investments	Net Investment	Months Unchanged	Equivalent for 1 month
Jan. 1		$24,000.00	$24,000.00	2	$ 48,000.00
Mar. 1	$100.00		23,900.00	2	47,800.00
May 1	300.00		23,600.00	4	94,400.00
Sept. 1	400.00		23,200.00	4	92,800.00
					$283,000.00

S. O. East

Date	Withdrawals	Investments	Net Investment	Months Unchanged	Equivalent for 1 month
Jan. 1		$12,000.00	$12,000.00	6	$ 72,000.00
July 1	$500.00		11,500.00	6	69,000 00
					$141,000 00

Mr. West had the equivalent of $283,000.00 invested for one month.
Mr. East had the equivalent of $141,000.00 invested for one month.
The firm had the equivalent of $424,000.00 invested for one month.
Mr. West is entitled to 283/424 of $8,000.00 net profit or $5,339.62.
Mr. East is entitled to 141/424 of $8,000.00 net profit or $2,660.38.
Net profit for the year $8,000.00

If the withdrawals are not made on the first of the month the partners may agree to ignore fractional parts of a month. Changes in the investment between the first and the middle of the month are considered to have taken place on the first and those between the middle and the end of the month are considered as of the end of the month. If exactness is desired the computation may be made in terms of number of days unchanged instead of months unchanged and the final column may be

headed "Equivalent for 1 Day." Otherwise the procedure is the same as that just indicated.

5. *Partly as Interest and Partly by Fixed Percentages.* It is assumed in the following illustration that 6 per cent interest is allowed on the capital invested at the beginning of the year, but no interest is charged on withdrawals as they are considered withdrawals of accruing profits. The remaining profit is to be distributed equally.

Mr. West is entitled to a credit for interest of $1,440.00 and Mr. East to $720.00.

Net Profit		$8,000.00
Distributed as interest:		
N. O. West	$1,440.00	
S. O. East	720.00	2,160.00
Balance distributed equally:		$5,840.00
N. O. West	$2,920.00	
S. O. East	2,920.00	5,840.00

The entries to record the distribution of the $8,000.00 and the closing of the drawing accounts are as follows:

Interest on Partners' Capital	2,160.00	
N. O. West, Drawing		1,440.00
S. O. East, Drawing		720.00
To record interest at 6 per cent on the capital invested by each partner at the beginning of the year.		
Profit and Loss	2,160.00	
Interest on Partners' Capital		2,160.00
To close the Interest on Partners' Capital account to Profit and Loss.		
Profit and Loss	5,840.00	
N. O. West, Drawing		2,920.00
S. O. East, Drawing		2,920.00
To close the Profit and Loss account to the drawing accounts.		
N. O. West, Drawing	3,560 00	
N. O. West, Capital		3,560.00
To transfer the net balance of the drawing account to the capital account.		
S. O. East, Drawing	3,140.00	
S. O. East, Capital		3,140.00
To transfer the net balance of the drawing account to the capital account.		

If interest is allowed on invested capital, the articles of partnership should make clear whether it is to be computed on the original investment, on the net investment at the time of distribution, on the average amount of capital invested for the fiscal period, or whether it is to be computed only on the excess above a stated minimum. Obviously each of these plans results in a different amount to be credited to each partner.

Interest allowed on the capital investment of the partners is a method of adjusting equitably the differences in the amount of the capital contributions to the firm. As such, it is a method of distributing profits and appears in the statement of profit and loss after the net profit or loss for the year is determined. If provided for in the agreement, it is allowed whether the enterprise operates at a net profit or loss.

If interest on loans of partners to the enterprise is a factor, the amount involved should be debited to Interest Expense the same as if the money had been borrowed from an outsider and credited either to Cash or to the drawing account of the partner depending on whether or not it was paid in cash.

6. *Partly as Salaries and Partly by Fixed Percentages.* While most partners give of their time as well as of their capital, some partners spend considerably more time than others in the interest of the firm and some have special skill, ability, or connections that enable them to bring considerable income to the firm. In order to provide for these personal service inequalities, salary may be allowed to some or all of the partners and at varying amounts. The agreement should state when the salaries are due and if not withdrawn whether or not interest is to be allowed on such amounts.

Cash payments to partners for salaries are recorded when paid in the cash disbursements journal as debits to the account Partners' Salaries. If the salaries when due are not taken in cash the entries are made in the general journal as debits to Partners' Salaries and credits to the drawing accounts of the partners concerned. At the end of the fiscal period the Partners' Salaries account is closed to Profit and Loss.

In the statement of profit and loss partners' salaries like interest on partners' capital should be treated as a method of distributing profits. If provided for in the agreement, salaries are allowed whether the enterprise operates at a net profit or loss.

7. *Any Combination of the Above Plans.* A plan in very common use which combines features of two of the methods previously described is one which provides that profits are to be divided partly as interest on capital, partly as salaries, and the balance equally.

Statement of Partners' Capitals

To explain changes in partners' equities, without burdening the balance sheet, a statement of partners' capitals is usually prepared. The following statement is for the partnership of West and East, assuming the facts of plan 5 of the illustrations presented earlier in this chapter for Distribution of the Net Profit and Loss.

WEST AND EAST
STATEMENT OF PARTNERS' CAPITALS
For the Year Ended December 31, 19__

	West	East	Together
Capital, January 1, 19__	$24,000.00	$12,000.00	$36,000.00
Plus: Net Profit for the Year	4,360.00	3,640.00	8,000.00
Total	$28,360.00	$15,640.00	$44,000.00
Less: Withdrawals	800.00	500.00	1,300.00
Capital, December 31, 19__	$27,560.00	$15,140.00	$42,700.00

The above statement exhibits the amount of equity of each partner that should appear in the balance sheet.

Drawing or Personal Accounts of Partners

Unless withdrawals or added investments are for substantial amounts and are intended to be permanent they are not debited or credited usually to the capital accounts of the partners. Minor debits and credits to the partners during a period are made to their drawing or personal accounts.

In an illustration in this chapter the drawing account balances were arbitrarily closed to the capital accounts. This may or may not be the proper procedure in a particular case. If it is the intention of the partners to increase or decrease their investments by the periodic balances of their drawing accounts, the illustrated entries are correct. In such cases the ratios of capital investments may change from period to period, in which case the profit distribution plan may need frequent revision. Very

often the partners of a firm do not wish their capital accounts to be disturbed by drawing account balances. If a drawing account shows a debit balance at the end of a period after the books are closed, the partner concerned may intend to pay cash to the firm for the amount of the balance, or he may desire the debit balance to remain open on the books to be satisfied by salary or other credits of the new period. The equity of a partner who has a drawing account with a debit balance is the excess of his capital account credit balance over the drawing account debit balance.

A partner with a credit drawing account balance after the books are closed may desire his account to be undisturbed as evidence of a balance subject to withdrawal by him and in the nature of a temporary loan to the partnership. Such an account, in the event of the dissolution of the firm, may take precedence over the investment claims of partners against the firm.

The kind of transactions entered usually in a partner's drawing account are illustrated by the following pro-forma outline of such an account.

Partner's Drawing

Withdrawals (temporary)......	xxx	Added Investments (temporary)	xxx
Share of resulting loss, if any..	xxx	Salary not taken..............	xxx
		Interest allowed on loans if not taken in cash...............	xxx
		Interest allowed on capital invested.....................	xxx
		Share of remaining profit......	xxx

Some partners never take their salaries in cash, as such. They desire their drawing accounts to be credited for salaries due them. Cash or merchandise taken by them or personal bills paid for them are charged to their drawing accounts.

QUESTIONS

1. Do you believe a partnership business might need all the accounting records so far considered in this text?
2. Would you say that problems peculiar to partnerships relate more particularly to the showing of the assets, the liabilities, or the net worth accounts?

3. *a.* What is a partnership?
   b. Must partners contribute equal amounts of property?
   c. Must each partner contribute property? If not, what may he contribute in lieu thereof?
4. Suppose partner *A* contributes $10,000.00, partner *B* $1,000.00. Neither partner withdraws capital or contributes additional capital during the year. Suppose, also, no agreement exists with respect to the division of net profit or loss and at the end of the year the firm is worth $20,000.00.
   a. What is the net profit or loss of the firm?
   b. What is *B*'s share of the net profit or loss?
   c. What is *B*'s net worth at the end of the year?
   Suppose further that *A* is worth $30,000.00 in addition to his interest in the business, that *B* has no additional wealth, and that these extra facts are known generally.
   d. Do you believe this firm would enjoy a favorable credit rating? Why?
   Suppose the business was ruined suddenly by a flood and its debts far exceeded its remaining assets.
   e. What is the limit of *B*'s losses?
   f. What is the limit of *A*'s losses?
5. Why do you believe the partnership type of organization is so popular with professional offices such as accounting firms?
6. Can you name any advantages of the partnership when compared with the sole proprietorship type of organization? Any disadvantages?
7. *a.* What do you mean by the expression "the unlimited liability of a partner for the debts of the firm"?
   b. What is meant by the expression "the mutual agency feature" of a partnership?
   c. May a partner sell his interest to anyone he chooses?
   d. Must the partnership agreement be in writing?
   e. Should the partnership agreement be in writing? Why?
   f. Name some of the points which should be covered by the *articles of partnership*, giving the reasons why in each instance.
8. *a.* How are profits divided among partners in the absence of agreement?
   b. How are losses divided among partners in the absence of agreement?
   c. Is interest on capital invested allowed in the absence of agreement?
   d. Are partners entitled to salaries in the absence of agreement?
   e. If interest is allowed on capital investment and salaries are

granted to the partners, are these allowances considered to be part of the profit distribution plan?

f. If provision is made for interest on capital investment and for salaries to the partners, may they be effective in a year in which the firm suffers a net loss?

9. *a.* How may an attempt be made to make profit distributions equitable when the capital investment of the several partners varies?

b. How may an attempt be made to make profit distributions equitable when the ability of the partners and the time devoted to the business vary?

10. If interest is allowed on capital investment, is it always on the amount of the original investment? If not, what other plans are there?

11. How could you determine the amount of the average capital investment of a partner for a year?

12. *a.* Should salaries to partners be listed as an expense of the enterprise or be shown at the bottom of the statement of profit and loss as part of the distribution to partners?

b. In what part of the statement of profit and loss is shown the interest allowance to partners on

(1) Loans?

(2) Capital investments?

13. If a partner withdraws in excess of his current credits, is such excess withdrawal an expense to the business? Explain.

14. What items are debited and credited to the personal account of a partner? To the capital account?

15. Is a drawing account more important in a partnership than in a sole proprietorship? Why or why not?

16. Should a partner be charged with merchandise withdrawals at cost or sales price? Explain.

17. Is a complete and accurate accounting system more important in a partnership than in a sole proprietorship? Why?

CHAPTER XXII

PARTNERSHIPS (*Continued*)

A partnership may be formed in several different ways:

1. Two or more individuals may form a partnership enterprise.
2. An organized partnership with the consent of all partners may
   a. Admit a partner who purchases an interest from one or more of the old partners.
   b. Admit a partner who purchases an interest from the old firm by increasing the total capital by the amount of his investment.

An existing partnership contract is terminated, among other reasons, with the death, insanity, bankruptcy, or withdrawal of a partner, by the expiration of the contract, or by the admission of a new partner. The termination of a partnership contract does not mean, however, that the enterprise necessarily ceases; a new partnership agreement may be entered into and the enterprise continued. The termination of an old partnership agreement and the drawing of a new one is very common practice in connection with the withdrawal of a partner or the admission of a new one.

Recording Each Partner's Original Investment

The investment by each partner in a new enterprise is recorded in exactly the same way as an investment by a sole proprietor. In the partnership there are several owners instead of one. Such opening partnership records may be indicated by the following pro-forma journal entry:

Assets (itemized)	xxx	
Liabilities and Reserves (itemized)		xxx
Partner's Capital		xxx
To record the original investment of Mr ________ at values agreed upon in the articles of partnership		

If assets other than cash are invested by a partner it is important that all partners agree to the values at which they are accepted, since subsequent profits or losses on them are shared by all partners. Before the first entry to record a partner's investment is made, a summary of the articles of partnership should be entered in the journal as a memorandum.

Entries to Record the Admission of a New Partner

As a new partner shares in all profits and losses arising after his admission, it is important that the book values of the existing partnership be questioned and, if necessary, that they be adjusted. Reserves for bad debts and depreciation may be excessive or inadequate, the current value of land or other assets owned by the partnership may be considerably higher or lower than at the time they were acquired, and the old enterprise may have developed goodwill which is not reflected in the records. These references are suggestive of the type of valuation problems to be considered and adjusted by journal entries prior to the admission of a new partner, if the rights of all partners are to be safeguarded.

To record the admission of a partner to an existing firm properly, it is necessary to determine

1. The equity of the old partners as shown by a balance sheet—adjusted if necessary to the agreed-upon values.
2. The initial net worth of the new partnership.
3. The proportionate interest in the capital of the new enterprise which the new partner is to have.

1. *If Payment Is Not Made to the Firm.* A new partner may be admitted as the result of the purchase by him of an interest from one or more of the old partners.

Assume for illustration that Mr. F. L. Flynn has an equity in the firm of Flynn and Hemm of $8,000.00, Mr. G. M. Hemm has an equity of $4,000.00, and that profits and losses are shared equally, also that Mr. H. N. Ross wishes to obtain a one-fourth equity in the partnership and a one-third interest in the profits.

Among other things it is agreed that the values shown for the assets and liabilities in the current balance sheet of Flynn and Hemm are approved by all parties and that the same set of books

is to be continued with an explanatory statement of the new agreement shown in the journal.

a. Assume further that Mr. Ross purchases his interest from Mr. Flynn and that the net worth of the partnership is to remain unchanged at $12,000.00. In a case of this kind where a new partner makes payment to an old partner, the entry to record the admission of the new partner is the same regardless of the amount of the payment. Since Mr. Ross is to have a one-fourth interest in the initial capital of the new enterprise, his account is credited and Mr. Flynn's account is debited with $3,000.00, as follows:

F. L. Flynn, Capital	3,000.00	
H. N. Ross, Capital		3,000.00
To record the transfer of a one-fourth interest in the partnership.		

b. If Mr. Ross purchases a one-fourth interest in the firm for $4,000.00, with payments to the old partners as individuals; and if it is agreed that the proportionate interests of the old partners are to remain the same, the entry to record the transfer is as follows:

F. L. Flynn, Capital	2,000.00	
G. M. Hemm, Capital	1,000.00	
H. N. Ross, Capital		3,000.00
To record the transfer of a one-fourth equity in the partnership.		

As Mr. Flynn had an equity equal to two-thirds of the net worth of the firm at the time Mr. Ross was admitted, his capital account is reduced by an amount which is equal to two-thirds of the figure for which Mr. Ross is credited.

This transaction, under which a $3,000.00 capital account credit on the books of the new partnership was sold by the old partners as individuals for $4,000.00, involves a $1,000.00 profit item to the partners personally. Since profits and losses of the old firm were divided equally, this $1,000.00 must be so distributed. Mr. Flynn's share of the $4,000.00 purchase price is, therefore, $2,500.00 and Mr. Hemm's share is $1,500.00.

2. *If Payment Is Made to the Firm.* A partner may be admitted by the purchase of an interest the payment for which is to go to the partnership and not to the individual partners.

Assume: That the accounts on the books reflect the agreed-upon values and that the books of the old firm are to be used by the new firm with an explanatory record in the journal of the new partnership agreement.

a. Assume further that Mr. Ross pays the new firm $4,000.00 cash for a one-fourth interest. The entry to record the investment of Mr. Ross as a new partner in the firm is as follows:

Cash	4,000.00	
H. N. Ross, Capital		4,000.00
To record the investment necessary to give Mr. Ross a one-fourth interest.		

The initial net worth of the new partnership is $16,000.00, divided as follows: Mr. Flynn $8,000.00, Mr. Hemm $4,000.00, and Mr. Ross $4,000.00.

b. Suppose Mr. Ross pays $3,000.00 cash for a one-fourth interest in an initial net worth of $15,000.00. Since the investment of $3,000.00 by Mr. Ross is to give him a one-fourth interest in $15,000.00 or $3,750.00, it is necessary for the other two partners to transfer $750.00 from their capital accounts to that of Mr. Ross. The entries to record the investment and the establishment of the new partner's equity are as follows:

Cash	3,000.00	
H. N. Ross, Capital		3,000.00
To record the cash investment by H. N. Ross.		
F. L. Flynn, Capital	375.00	
G. M. Hemm, Capital	375.00	
H. N. Ross, Capital		750.00
To record the transfer agreed upon to give H. N. Ross a one-quarter equity in the initial capital of the new partnership.		

In this particular illustration it was necessary for the old partners to induce Mr. Ross to join the firm. The old firm

may have needed his cash investment or his services so badly it was willing to grant him a capital credit in excess of his actual investment. The excess credit to the new partner is a loss to the two old partners who divide it equally according to their profit and loss distribution plan.

It is possible for an additional credit to be allowed Mr. Ross in recognition of the personal business reputation he had developed. Assume: On the investment of $3,250.00 cash Mr. Ross is to be allowed a capital credit of $4,000.00 in a total initial net worth of $16,000.00. The entries to record his investment and the establishment of his interest are

Cash	3,250.00	
H. N. Ross, Capital		3,250.00
To record the cash investment by H. N. Ross.		
Goodwill	750.00	
H. N. Ross, Capital		750.00
To record the goodwill allowance granted H. N. Ross.		

c. Suppose Mr. Ross pays $4,500.00 cash for a one-fourth interest in an initial net worth of $18,000.00.

If the initial net worth of the partnership is greater than the capital of the old partners and the investment of the new partner, the excess is the value allowed for the favorable reputation—Goodwill—developed by the old partnership. In this case the computation is

Initial net worth of the partnership		$18,000.00
Less:		
Capital of old partners:		
Flynn	$ 8,000.00	
Hemm	4,000.00	
Total	$12,000.00	
Investment of new partner	4,500.00	16,500.00
Goodwill allowed old partnership		$ 1,500.00

Two entries are necessary to adjust the partnership records—one to record the goodwill of the old partnership and another to record the investment of the new partner.

Goodwill	1,500.00	
F. L. Flynn, Capital		750.00
G. M. Hemm, Capital		750.00
To distribute equally the goodwill developed by the partnership prior to the admission of Mr. Ross.		
Cash	4,500.00	
H. N. Ross, Capital		4,500.00
To record the investment of Mr. Ross equal to a one-fourth interest.		

The $1,500.00 debit to Goodwill represents a profit to the old partners, hence its distribution to them according to the profit and loss sharing ratio.

Before discussing the asset *goodwill*, which was used in the last two illustrations, mention should be made again that a partner may be taken into a firm without making any property investment. The services of a person may be so valuable to a partnership that he is admitted to membership in the firm with the right to a specified share in the profits but without any share in the equity. The admission of a partner on such a basis does not require any formal entry but an explanatory memorandum should be made in the journal as a summary of the new partnership agreement. Such a partner with the approval of the other members of the firm may establish an equity by allowing salary and other credits to accumulate or by making a property investment at a later date.

GOODWILL

Definition

Goodwill is the value of the established reputation of an enterprise.

An established reputation is developed by many factors such as excellent management, high quality of products and services, favorable prices, convenient location, and courteous and fair actions in all matters. Such influences, in themselves, build up consumer demand for the products or services of the enterprise, which, if reflected in net profit returns above those of normal business, indicates that the reputation has a value. A reputation value—goodwill—should not be set up on the books of an enterprise which creates it unless the value is established by the

sale of an interest in it. If the reputation of one enterprise is purchased by another, the purchasing enterprise should show goodwill as an asset for the amount paid for the reputation acquired.

The reason why goodwill should not appear on the books of the enterprise which creates it, unless its value is established by the sale of an interest in it, should be apparent. If the owners of an enterprise could fix arbitrarily a value on goodwill and set it up as an asset, there would be no limit to the figure they might use and the result might be ridiculous.

In the last illustration of the entries to record the admission of a new partner, the asset goodwill was involved. The old partners Flynn and Hemm had a capital of $12,000.00. Ross was admitted as a partner with a one-fourth interest upon the payment of $4,500.00. The purchase by partner Ross of a one-fourth interest in profits and equity for $4,500.00 established the net worth figure of $18,000.00 for the new partnership, which in turn fixed the value of the goodwill of the old partnership at $1,500.00. The Ross investment included the purchase by him and the sale by the old firm of an interest in the goodwill it had developed and justified the charge to the Goodwill account.

Determining the Value of Goodwill

The ability of an enterprise to earn better than normal profits for one year is not adequate evidence of goodwill. The evidence should cover a number of years, the net profits of which should be averaged. In determining the average annual net profit for a given period of years exceptional and nonrecurring expenses or income of any particular year should be excluded. The profit trend for the period considered should be noted, since an enterprise with a decreasing profit trend may have the same average as one with an upward trend. The trend should be considered in connection with the state of general business prosperity for the period covered.

The value of established reputation depends in part on the estimate of its permanency. An outsider who is contemplating the purchase of an enterprise or an interest therein is very much interested in the number of years that special benefits may be expected to flow from such reputation. If net earnings are erratic or declining, the value of the reputation is highly questionable in spite of an excess of average annual net profit.

In professional partnerships goodwill is questionable if the death or withdrawal of a key man is apt to destroy it. In business establishments goodwill may be estimated by capitalizing the excess earnings.

For purposes of illustration the following facts are assumed:

1. The average net income of an enterprise for the last five years is $20,000.00.
2. The average capital investment for the same period is $175,000.00.
3. A normal rate of return is considered to be 10 per cent.

At 10 per cent a capitalization of the excess earnings results in goodwill of $25,000.00 computed as follows:

Average net income for the last five years.......	$20,000.00
Less 10 per cent of the average capital investment	17,500.00
Excess of the average over normal net income...	$ 2,500.00

$$\frac{\$2{,}500.00}{.10} = \$25{,}000.00 \text{ Goodwill}$$

The above illustration is correct theoretically, but it is modified commonly in practice. Suppose the outsider who contemplates the purchase of this business or an interest therein, estimates that eight years is the future period in which better than normal profits may be expected. On the basis of such an estimate he would not be willing to value goodwill at more than eight times the average annual excess of $2,500.00 or $20,000.00, and of course he would try to acquire it at a figure lower than that. The final goodwill figure is usually, therefore, a matter of bargaining.

Recording Goodwill

Goodwill, if purchased outright, is recorded at cost price. If only an interest in goodwill is sold, it is recorded at the figure established by the price paid for the portion sold.

Goodwill should be charged to the Goodwill account and should not be concealed in some other asset account. The journal entry to record goodwill in a partnership was illustrated earlier in this chapter. Other goodwill entries will follow in later chapters as occasion demands.

The asset goodwill is not subject to depreciation and once the account for it is set up on a set of books it need not be written off. Its value may be preserved, even increased, as time goes on. Because of its intangible character, however, some enterprises do write it down. In some cases it is reduced to the purely nominal figure $1.00. When this is done goodwill is charged directly to capital—it should not be treated as an expense and charged to an account which finds its way into the profit and loss account.

DISSOLUTION

Definition and Causes

The word dissolution as applied to a partnership refers to the cancellation of a partnership contract. As stated in the forepart of this chapter a partnership contract is dissolved, among other causes, by the expiration of the contract, the death, insanity, bankruptcy, or withdrawal of a partner, or by the admission of a new one. The contract also may be dissolved if the partners agree to liquidate for any reason or if they convert the enterprise into a corporate form of organization. The word dissolution does not imply that the business is to be terminated. If a new partnership is formed to carry on the business of the old one, the old contract is canceled and a new one immediately takes its place.

The Accounting Problems of Dissolution

Illustrations previously shown in this chapter indicated the entries necessary on the books of a partnership if there was a dissolution caused by the admission of a new partner. The old agreement was canceled, a new one was drawn immediately and the books of the dissolved partnership were used for the records of the new partnership.

If a partner withdraws or dies it is necessary to determine his equity on the date of withdrawal or death. The problem is complicated by the necessity of estimating the net profit or loss of the period immediately preceding death or withdrawal when the date differs from the close of the regular fiscal period.

If the partnership not only is dissolved but is also liquidated, the accounting records must be completely closed. The process of liquidation involves

1. Distribution of the net operating profit or loss for the last period to the date of dissolution.
2. Conversion of the assets into cash.
3. Liquidation of the liabilities.
4. Division of the net profit or loss resulting from realization of the assets and liquidation of the debts.
5. Distribution of the assets to the partners according to their respective equities on the date of distribution.

Withdrawal or Death of a Partner

For purposes of illustration it is assumed that the following condensed balance sheet shows the condition of the partnership of Holt, Hirt, and Hyde on December 31, 19__.

HOLT, HIRT, HYDE

Balance Sheet, December 31, 19__

Assets (Various).......	$50,000.00	Liabilities (Various)....		$20,000.00
		Holt, Capital..	$15,000.00	
		Hirt, Capital..	10,000.00	
		Hyde, Capital..	5,000 00	30,000 00
	$50,000.00			$50,000.00

Assume further that the partners share net profit or loss, Holt 50 per cent, Hirt 30 per cent, and Hyde 20 per cent, also that Mr. Holt desires to withdraw as of December 31, 19__.

If the partners agree that the balance sheet figures need further adjustment prior to the withdrawal, suitable entries are made. For example, if it is agreed that the Reserve for Bad Debts account should be increased $500.00, this increase in a valuation reserve account reduces the equities of the partners and is charged to their capital accounts according to the profit and loss sharing ratio, as follows:

Holt, Capital	250.00	
Hirt, Capital	150.00	
Hyde, Capital	100.00	
Reserve for Bad Debts		500.00
To increase the reserve for bad debts to further care for possible losses after the withdrawal of Mr. Holt.		

Entries to illustrate the type of journal record which is necessary when a partner withdraws were presented in connection with the entries to record the admission of a new partner and will not be illustrated further.

The accountant should examine the articles of partnership carefully to note any special provisions covering the procedure to be followed in case of the withdrawal or death of a partner. The entries to close the account of a deceased partner are similar to those for withdrawals. They vary according to whether a new partner takes the place of the deceased or whether the equity is purchased by the remaining partners.

Realization—Conversion of Assets into Cash

If Messrs. Holt, Hirt, and Hyde agree to go out of business and Mr. Hance buys the partnership assets for cash at their book values plus $6,000.00 for goodwill, the following entry records the sale:

Hance, Vendee	56,000.00	
Assets (various)		50,000.00
Profit—Sale of Partnership Assets		6,000.00
To charge Mr. Hance with the purchase price of the partnership assets including goodwill, to close out all asset accounts and to record the profit arising from the sale of goodwill.		

When Mr. Hance, the purchaser of the business, satisfies the charge against him by payment in cash, record is made in the cash receipts journal. The old firm is then in position to liquidate its debts and make distribution to the partners.

Division of the Net Profit or Loss of Dissolution

The net profit or loss arising out of the sale of a business or any of its assets is distributed among the several partners in the same ratio as operating net profit or loss. It is highly important that such profit or loss of dissolution be divided among the partners prior to the payment of cash to them.

To continue the illustration, the profit from the sale of the partnership assets is distributed by the following entry:

Profit—Sale of Partnership Assets	6,000.00	
Holt, Capital		3,000.00
Hirt, Capital		1,800.00
Hyde, Capital		1,200.00
To distribute the profit resulting from the sale of the partnership.		

It sometimes happens that the distribution of a loss from either operation or dissolution results in a debit balance in the capital account of a partner. If such partner is able to make good the deficiency his account is credited and the asset contributed—usually Cash is debited. If the partner cannot make up the deficiency the debit balance is apportioned between the remaining partners on the basis of the profit and loss sharing ratio. If a loss should cause Mr. Hyde to have a debit balance in his capital account and he is not able to pay it off, his account is considered an additional loss to be divided five-eighths to Mr. Holt and three-eighths to Mr. Hirt. This particular distribution is based on the fact that the partnership agreement provided that net profit or loss was to be divided 50 per cent to Holt, 30 per cent to Hirt, and 20 per cent to Hyde. Any loss to be borne by Holt and Hirt alone is, therefore, on the basis of five-eighths and three-eighths respectively.

Liquidation—Distribution of the Cash

After the assets are converted into cash the claims of creditors are satisfied before the equities of the partners. For each liability satisfied an entry is made in the cash disbursements journal debiting the liability account and crediting Cash.

In the Holt, Hirt, Hyde illustration when $56,000.00 is collected from Mr. Hance there are $20,000.00 of creditor claims to be satisfied. After they are paid there is $36,000.00 available for the partners. It is distributed according to the credit balances remaining in the capital accounts of the partners by the following entry:

Holt, Capital	18,000.00	
Hirt, Capital	11,800.00	
Hyde, Capital	6,200.00	
Cash		36,000.00
To charge each partner with the amount paid him in complete liquidation of his equity in the partnership.		

If any partner has made loans to the partnership his loan account is satisfied before distribution is made to the partners for their capital accounts.

Each partnership dissolution presents its own peculiar problems and some become highly involved. The discussion of this subject in this text has been limited to the liquidation of solvent concerns where the claims of partners are satisfied by one final distribution of assets. The problems arising out of the liquidation of insolvent concerns and installment distributions to partners are left to texts which cover the more advanced principles of accounting.

QUESTIONS

1. Suppose Rogers owns a business, the net worth of which is $8,000.00.
   a. Give the entry on the books of the business, if Rogers sold a half interest to Smith for $8,000.00 and the money went into the business.
   b. Give the entry if the cash was kept by Rogers personally.
   c. Give the entries if Rogers sold a one-half interest to Smith for $10,000.00 cash and the money went to the credit of the firm.
   d. Give the entries if Rogers sold a one-half interest to Smith for $7,000.00 cash and the money went to the firm, the initial worth of which is to be $16,000.00.
   e. Suppose the same facts as in *d* except that the initial net worth of the firm is to be $15,000.00.
2. Why would an owner be willing to sell an interest in his business for a consideration which is less than the proportionate share of his equity in the business?
3. Suppose there are four partners in an enterprise, each has an equal interest in the equity and net profits, and the net worth is $20,000.00.
   a. If *X* is admitted to the partnership on a basis equal to the others how much would he invest? (Assume payment is to be made to the firm solely on the basis of the facts and figures given above).
   b. Is it possible *X* might pay more than the figure you gave in answer to *a*? Why?
4. *a.* What is *goodwill*?
   b. Name some factors which develop goodwill.
5. *A* and *B* are partners. They invested $10,000.00 each, their net worth is still $20,000.00 but they have earned and withdrawn from the business $12,000.00 apiece for each of the last 10 years.
   a. Do you think they would sell the business for $20,000.00? For $50,000.00? Why?

b. Would it be in accord with sound accounting principles for them to set up a Goodwill account on their books—say for $10,000.00? For $30,000.00? For what amount?

c. Suppose they sell a one-third interest in the equity and the net profits to *C* for $40,000.00 and payment is made to the firm. May the account Goodwill now appear on the books? If so, for how much?

6. Where may goodwill be classified on the balance sheet?

7. On what basis may the value of goodwill be determined?

8. Is goodwill subject to depreciation? Why?

9. Why do you think some enterprises write down the value of goodwill to $1.00?

10. Can you mention any enterprises which show goodwill on their balance sheets?

11. Can you name any local enterprises which you believe have goodwill whether they show it on their statements or not? Why?

12. *a.* What factors may cause a partnership to dissolve?

b. If a partnership is dissolved, is the business terminated, necessarily? Explain.

13. Suppose a partner dies at the end of the second month of a fiscal year. What accounting work is necessary?

14. *a.* A loss in dissolution would be divided among the partners on what basis?

b. Assets in dissolution are distributed to the partners on what basis?

c. In dissolution are liabilities or partners' equities satisfied first? Why?

15. In dissolution one of three partners has a debit balance in his capital account and his personal assets are insufficient to meet it. How should it be charged to the other partners *A* and *B* who have shared profit or loss five-eighths and two-eighths respectively?

CHAPTER XXIII

CORPORATIONS

The last two chapters dealt with problems peculiar to the partnership type of organization. It is the purpose of this and the succeeding two chapters to consider problems inherent in the corporate form of organization.

A corporate enterprise, the same as a partnership, needs all the accounting books and other records described in connection with an enterprise owned by a sole proprietor and needs to follow all the steps outlined in the accounting cycle. Because of its type of organization, a corporation needs additional books and accounts to keep records of its members and their equity.

Definition

A corporation is an entity created by law to conduct an enterprise.

A corporation, commonly referred to as a company, is primarily an association of persons who have been authorized by legal action to conduct an enterprise. Although made up of members, the corporation is a separate legal entity in itself. It is empowered to transact business under its own name; to purchase, hold, and convey title to both real and personal property; to institute and defend litigation and, unless previously dissolved, to continue its existence to the end of its legal life, regardless of changes in the personnel of its membership.

The corporation is a creature of the law, hence its rights, privileges, powers, and existence are limited by the specific provisions of its charter and the general law.

The enterprise, for the conduct of which a corporation is organized, need not be a private business undertaking. The enterprise may be the government of a city, town, or school district. A corporation created for such a purpose is known as a public corporation. The enterprise may be primarily a religious, charitable, educational, or social undertaking, in which case the

corporation formed is usually a nonprofit corporation, membership in which is not evidenced commonly by shares of stock.

The vast majority of corporations are those organized to carry on business undertakings with the profit motive. Membership in such corporations is evidenced by shares of stock, and it is to the consideration of this class of corporations that the following discussion is devoted.

Formation

Except for a few cases, such as national banks which obtain their charters under the authority of federal laws, the charters for corporations are obtained from the various states under authority of state statutes. The requirements for incorporation vary as between the several states as do the privileges, rights, and powers granted. Since certain states have more liberal incorporation laws than others, it is common practice to obtain a charter in a state other than the one where the corporation will conduct its principal business. For this same reason and further because the procedure of incorporation is a legal matter and not an accounting one, no attempt will be made here to discuss completely the formation of a corporation. A few main features which are required quite generally are as follows:

1. A required number of incorporators must sign and file with the proper state official an application for a charter. On the application there must be stated: the name of the proposed corporation; the nature of its business; the place of the business; the names and addresses of its subscribers and the number of shares subscribed by each; the names and addresses of the directors chosen for the first year; the amount and number of shares of par value stock or the number of shares of no par stock; and the amount paid in.
2. Necessary fees must be paid to the state.
3. Public advertisements of the application for a charter must appear, if and as required.
4. If the application is approved, the charter or certificate of incorporation is signed by the authorized state officer, recorded in the proper state office, and returned to the incorporators.
5. A meeting of the stockholders is held to accept the charter and adopt bylaws.

6. The charter is recorded usually in the office of the recorder of deeds for the county where the corporation has its main office.

Management

The members of the corporation adopt bylaws which ordinarily can be amended only by the same body. These rules specify the time and place for meetings of the official corporate body, delegate powers to the directors and officers, and otherwise provide for the conduct of the internal affairs of the corporation.

The directors are elected by the members and it is the usual practice for the directors in turn to choose the officers such as the president, vice-president, treasurer, and secretary.

Comparison with Partnerships—Advantages

When compared with partnerships, the corporate form of organization has certain very decided advantages, among which are

1. The stockholders who are the owners of a corporation do not have unlimited liability for the debts of their enterprise as do the partners in a general partnership enterprise. This is true because a corporation is a distinct legal entity apart from its members. Ordinarily the losses of a stockholder are limited to the amount of his investment, if his stock has been paid for in full.

2. If there is a purchaser, the transfer of a stockholder's interest in a corporation is relatively easy compared to the transfer of a partner's interest in a firm. The latter requires the unanimous consent of all partners, the dissolution of the old partnership, and the establishment of a new one. The former involves simply the transfer of a stock certificate.

A stockholder may dispose of his stock as and when he pleases without disturbing the corporate existence. If the stock of a company is popular and there is an active market for it, a person may purchase or dispose of an interest in the enterprise at will.

3. The life of a successful corporation is practically continuous, while that of a partnership is uncertain. The death or withdrawal of a partner, among many other causes, dissolves a partnership; but the death or withdrawal of a stockholder, even

a stockholder with a controlling interest in the company, does not disturb its existence. This feature of permanence lends stability to the corporate form of organization, attracts investors and makes it possible for the corporation to undertake long-term contracts.

4. There is practically no limit to the number of stockholders a corporation may have or to the maximum amount of capital which may be invested. On the other hand, the partners in a firm are not likely to go on adding associates whose partnership actions bind them all. The capital investment of a partnership is limited to the financial ability of the few partners to contribute to it. The charter of a corporation limits the number of shares and the amount of its capital stock, but if such figures prove inadequate an application may be made to amend the charter.

The number of stockholders in some corporations runs into the hundreds of thousands and the amount of capital into the hundreds of millions. The corporate form of organization may be said to have every advantage that goes with large-scale enterprise.

5. A corporate form of organization is likely to give an enterprise a more unified form of control than does a partnership. In a partnership each member has an equal share in management. In a corporation the members elect a board of directors who choose officers to carry out their policies. The board of directors is responsible to the members who vote according to the extent of their interests, on the basis of the number of shares owned.

6. The representative form of corporate control makes it possible for the enterprise to enlist the services, not as employees but as directors, of men of wide experience and influence whose major interests may be in other lines of endeavor. This is not possible in a partnership.

Comparison with Partnerships—Disadvantages

There are certain disadvantages connected with corporations which do not apply to partnerships.

1. Every member of a partnership has the proprietary urge. This is not true in the same degree in a large corporation which may suffer from absentee ownership—lack of active interest in its affairs by its members.

2. There is a greater possibility of the misuse of power in a corporation than in a partnership. Because of absentee ownership, it is possible oftentimes for directors and officers to violate the power entrusted to them and to divert to their personal gain opportunities which belong to the corporation.

3. Corporations are burdened with a greater number of reports and taxes than are partnerships.

4. It is more expensive to organize a corporation than a partnership.

5. Since the activities of a corporation are limited by its charter, it may not be so free to extend its field of action as is a partnership.

6. Since a corporation is created by the state it is subject to greater governmental control than is the partnership.

7. Because of the limited liability feature of the corporation, a small corporate enterprise with wealthy stockholders does not have so high a credit rating as would a partnership with the same members.

All things considered the advantages of the corporate over the partnership form of organization far outweigh the disadvantages.

Although a corporation is a legal entity, the fact must not be overlooked that it is managed and operated by humans. The choice of directors and officers determines its policies and results. A change in personnel of those in control or the death of an important stockholder, director, or officer does not disturb its legal existence but may have a profound effect on its economic existence.

Capital Stock Terms Defined

The capital of an enterprise whether it be a sole proprietorship, a partnership, or a corporation is the excess of the assets over the liabilities. It is the proprietary or ownership interest (equity) in the total assets of the enterprise. The capital of a corporation must not be confused with its capital stock. At the time a corporation is organized and the members invest in it, the amount of its capital and its capital stock may be the same.

Earlier in this chapter it was stated that the application for a charter for a corporation must state the amount and the number of shares of par value stock or the number of shares of no par

value stock. The charter when issued authorizes the corporation, among other powers, to issue a certain amount of capital stock divided into a given number of shares of par value stock or a certain number of shares of no par stock, or both. Since it is common practice for a corporation not to issue all the stock authorized by its charter, it is customary to refer to authorized capital stock and capital stock, the latter indicating usually capital stock authorized and issued.

Authorized capital stock is the amount of ownership interest a corporation is authorized by its charter to issue on a share basis.

Capital stock is authorized capital stock or, as very commonly used, it is the amount of ownership interest actually issued by a corporation on a share basis.

Outstanding capital stock is the amount of capital stock issued by a corporation which is in the hands of stockholders.

Unissued capital stock is the amount of capital stock authorized by charter but not issued.

Subscribed capital stock is the amount of authorized capital stock for which contracts of sale have been made but for which full payment has not been received.

Unsubscribed capital stock is the amount of authorized capital stock for which contracts of sale have not been made.

Stock Terms Defined

An ownership interest in a corporation is evidenced by a *certificate* of *stock*, which indicates the number of shares of the capital stock owned.

A *share* of capital stock is a unit of ownership participation in the affairs of a corporation.

A corporation may have more than one class of stock. If so, each class has certain rights and privileges. The usual classes of stock are common and preferred, with a number of varieties of each.

Preferred stock is any class of ownership participation in the affairs of a corporation which has any special rights over the common stock. Usually the preference is a first but limited claim on dividends ahead of the common stock. Another common preference, among many which may be specified, is that the preferred stock shall rank ahead of common stock in the distribution of the assets of a corporation in case of dissolution.

There may be a number of classes of preferred stock, such as 6 per cent first preferred and 7 per cent second preferred, and there are a number of varieties such as: participating preferred; nonparticipating preferred; cumulative preferred; redeemable preferred; convertible preferred; and nonvoting preferred. Unless otherwise specified a preferred stock with preference over the common stock as to dividends is cumulative. If a 6 per cent cumulative preference stock receives no dividends for two years it is entitled to 12 per cent before any dividends are paid on the common stock. A noncumulative preferred stock carries the dividend preference for each year separately and the unpaid dividends of one year do not accumulate for the next year.

Common stock is the class of ownership participation in the affairs of a corporation to which no preferences over any other class of stock are granted. It participates usually in earnings and in assets in dissolution after the rights of preferred stockholders, if any, are satisfied. The common stock is the ordinary stock which is the first to feel the effects of losses and which benefits most by profits in excess of the amount necessary to satisfy preferred dividend claims. If only one class of stock is issued it is all common stock. The common stock usually carries the voting privilege.

Under the laws of some states common stock may be divided into a number of classes, such as nonvoting and voting, which are designated usually Class A and Class B, respectively. When this privilege is used, it is customary to issue a relatively small amount of Class B voting stock, the control of which by the organizers of the corporation gives them control of the enterprise.

Treasury stock is full-paid capital stock reacquired by the issuing corporation as the result of purchase, donation, or the payment of a debt.

Par value stock is any authorized capital stock, the certificates for which state a nominal or uniform figure for each share in the particular class of stock; $10.00, $50.00, and $100.00 are very common par value figures. Par value stocks are shown in the Capital Stock account of the issuing company at par value figures regardless of the amounts at which disposed.

No par value stock is any authorized capital stock, the certificates for which do not state any nominal or par value for each share.

Rights of a Stockholder

Unless restricted by a limitation of privilege placed on the entire class of stock of which it is a part, each share of stock entitles its owner, among other rights, to

1. A vote at the annual or special meetings of the stockholders.
2. A proportionate share in any profit distribution.
3. A proportionate share in any assets of the corporation which remain after the payment of debts, in case of dissolution.
4. A proportionate share of the rights to subscribe to any new stock which may be issued by the corporation.

Capital Stock Accounts

A separate account should be kept on the books for each class of capital stock and each class should be presented clearly on the balance sheet of the corporation.

Unissued capital stock and treasury stock are not assets. They are deducted from the authorized capital stock to determine the outstanding capital stock in the proprietorship section of the balance sheet. The proper form is indicated on page 358.

Other Proprietorship Accounts

After a corporate enterprise starts operations its capital as the result of operating profits and losses alone is not the same as the amount shown by the Capital Stock account which, in the case of par value stocks, is kept at par value figures. Increases and decreases in capital which do not affect the amount of capital stock are shown at the end of a period in Surplus or Deficit accounts.

Surplus is the excess of the assets over the liabilities and capital stock of an enterprise. In other words it is the amount to be added to capital stock to indicate the equity of the stockholders in a corporation.

Deficit is the excess of the liabilities and the capital stock over the assets of an enterprise. It is the amount to be deducted from capital stock to indicate the equity of the stockholders in a corporation.

The proprietorship equation adjusted to corporate needs is

$$\text{Assets} - \text{Liabilities} = \text{Capital Stock} + \text{Surplus}$$

or

$$\text{Assets} - \text{Liabilities} = \text{Capital Stock} - \text{Deficit}$$

A more complete consideration of surplus and deficit is reserved for Chapter XXV.

SPECIAL BOOKS AND RECORDS OF CORPORATIONS

Because of its type of organization, a corporation needs certain special books and records which are not necessary in other forms of organization. Unlike a partnership, a corporation does not show proprietorship accounts with its various members on its general ledger. The reasons are: there may be many thousands of members or stockholders; the stockholder list may be changing constantly as the result of transfers of stock; and corporations must keep records of their par value capital stock at par value figures. The shares of par value stock issued by a corporation to its stockholders are represented on the general books by the account Capital Stock, the balance of which equals the number of shares issued multiplied by the par value of the stock. If there are several classes of stock, there is a separate account for each, as Preferred Stock and Common Stock. Each of such accounts controls a subsidiary ledger wherein the accounts with the various stockholders are shown.

Minute Book

The minute book is the official record of the meetings of incorporators, stockholders, and directors of a corporation. It is kept by the secretary of the corporation with the advice of the legal counsel of the company. In it are recorded all resolutions offered and the actions thereon.

Many corporate actions need to be supported by evidence that they have been authorized by proper resolution of the stockholders or the board of directors. This evidence takes the form of a certified copy of the appropriate *minute* of a meeting of stockholders or the board. For example, the bank in which a corporation deposits its cash items would require a certified minute of the board as evidence of who was authorized to sign checks.

If well kept, the minute book contains a copy of the charter and bylaws and record of actions pertaining to such matters as the nomination and election of directors and officers, the salaries of officers, the declaration of dividends, and the issuance of stocks and bonds.

The minute book is not an accounting book but it is of particular importance to the accountant as authority for many entries.

Subscription Records

If the capital stock of a corporation is sold to a number of persons with payment to be made at a later date, it is desirable to have a special form on which a subscriber may agree to purchase the stock. This special record shows for each subscription, the signature of the subscriber, the date, the number of shares for which he subscribed and the amount. It is the basis for a charge to the account Subscribers to Capital Stock and serves as a subsidiary record to that account. Sometimes this record is obtained on subscription sheets with a number of subscribers to the page, other times it is obtained by the use of a separate card or sheet for each subscription.

If the subscriptions are to be paid by installments, a subscribers' subsidiary ledger with an account for each subscriber is opened usually so that a complete record of each subscriber's payments may be kept. In appearance and operation this ledger is similar to the subsidiary ledger for accounts receivable.

If subscriptions are obtained for more than one class of stock, a separate subscription record is used for each and a separate controlling account represents each on the general books. Thus in the ledger of a company may be found the accounts Subscribers to Common Stock and Subscribers to Preferred Stock.

When a board of directors issues a *call* on subscribers for the payment of an installment on their subscriptions, the call should be recorded on the general books of the company by a charge to an installment account and a credit to the proper subscribers' controlling account. The installment account on the books indicates that a definite date has been set by the board for the payment of a definite amount of subscriptions. The installment account is a more current asset than the subscribers' controlling account. The subscribers' ledger is a sufficient subsidiary record ordinarily to care for subscriptions paid by installments.

Installment Scrip Book

As stockholders ordinarily receive their stock certificates only after all installment payments have been made, receipts are issued as evidence of partial payments on stock subscriptions. These receipts are known as *installment scrip.* When all installment payments have been made the installment receipts are exchanged for stock certificates.

The book containing the installment scrip is in two parts—a stub and receipts sections, separated by perforations. On the stub appears the date, the number of the scrip, the name of the subscriber, the number of shares subscribed, the amount of the subscription, the number of the call, and the amount paid by the installment. The receipt portion is signed by the proper officers of the corporation and contains all of the information shown on the stub in addition to the certification of payment and a statement of the agreement to exchange the scrip for a stock certificate when the contractual conditions are fulfilled.

Sometimes installment receipts after the first one are recorded on the original receipt and sometimes receipts are in loose form and not in a scrip book as described. Whether an installment scrip book is or is not used, detailed records of installment receipts are entered in the subscribers' ledger.

Stock Certificate Book

A stock certificate book is divided, like an installment scrip book, into two parts—a stub and the formal certificate sections. The stub is used to record the number of the certificate, the date, name of party to whom issued, the number of shares, and if not an original issue, the name of the party from whom transferred, the number of his certificate, and its number of shares. When a certificate is canceled it is pasted to its stub.

The stock certificate certifies that the party named is the owner of the stated number of shares of the capital stock of the corporation. In addition the certificate usually states the name of the corporation, the certificate number, the date, the class of stock to which the certificate refers, the par or stated value, if any, the state in which incorporated, and the number of authorized shares of capital stock. Stocks which are listed on the New York Stock Exchange must carry all this information and

Number
P6338

Shares
2

Certificate for less than one hundred shares
CAPITAL STOCK
$2,500,000.00
50,000 shares par value $50.00 each

THE A. X. Z. COMPANY

Incorporated under the Laws of the Commonwealth of Pennsylvania, April 13, 19__

This certifies that John Doe*** is are entitled to ______________ TWO ______________ shares in the Capital Stock of the A. X. Z. Company, transferrable only in person or by Attorney on the books of the said Company.

Witness the Seal of the Company and the signatures of the President and Treasurer

Philadelphia, Pa., 13th January, 19__

O. L. Wallace
President

A. H. Bliss
Secretary

Seal

R. D. Jones
Treasurer

Countersigned
Blair Hunt
Transfer Agent

This certificate is not valid until countersigned by the Transfer Agent and the Registrar.

SHARES $50 EACH

Registered in Philadelphia, January 13, 19__
BLANK TRUST COMPANY
Registrar
S. T. Warrington
Authorized Officer

Stock certificate.

meet additional requirements. Each certificate is signed usually by two officers authorized by the bylaws to sign certificates and is stamped with the corporate seal.

On the reverse side of a stock certificate is a blank power of attorney for use if the certificate is to be transferred.

For Value Received ________ hereby sell, assign and transfer unto

____

____ shares of the Capital Stock represented by the within Certificate and do hereby irrevocably constitute and appoint

____ Attorney, to transfer the said stock on the books of the within named Company with full powers of substitution in the premises.

Dated ________________

____

In Presence of

____

Notice: The signature to this assignment must correspond with the name as written upon the face of the Certificate in every particular without alteration or enlargement or any changes whatever.

Transfer form on back of stock certificate.

Capital Stock Ledger

If a corporation has but a few stockholders the stock certificate book may furnish sufficient information about the holdings of each. If it has many stockholders a subsidiary stockholders' ledger—capital stock ledger—is necessary.

Each stockholder has an account in the stockholders' ledger. This ledger is operated on the same general principles as any other ledger but it is peculiar in one respect, it is kept usually in terms of shares of stock and not in dollars and cents. A stockholder is credited for the number of shares acquired by him directly from the corporation or by transfer from another stockholder. He is debited with the number of shares he transfers.

The capital stock ledger is subsidiary to the Capital Stock account. If the stock is par value stock, to check the subsidiary ledger with its control account, it is necessary to multiply the sum of the credit balances of the subsidiary ledger by the par value of a share. The subsidiary ledger should check also

with the sum of the balances shown by the stock certificate book.

Postings are made to the stockholders ledger from the stock certificate book or from the stock transfer journal when one is used. If there are several classes of stock, there is a separate subsidiary ledger for each class.

CAPITAL STOCK LEDGER

R. A. Davis—205 Greentree Road, Sylvandale, Pa.

Date	Name of Transferee	F	Certificates Surrendered		Date	Name of Transferor	F	Certificates Issued	
			Number of Certificate	Number of Shares				Number of Certificate	Number of Shares
19__					19__				
July 12	T. B. Reed	T 52	804	300	Jan. 8	Original Issue	SCB	610	200
July 12	R. A. Davis	T 52	804	200	Feb. 11	Walter Brown	T 5	782	350
					Feb. 25	Chas. Benson	T 17	804	500
					May 20	Jas. Rhoads	T 40	1105	250
					July 12	R. A. Davis	T 52	1277	200

The suggested form of capital stock ledger account of the Sylvan Furniture Company illustrated above, reveals that R. A. Davis owns 1,000 shares of stock on July 12, 19__. His first stock in the company, 200 shares, was acquired on January 8, 19__, as part of an original issue. Certificate 610 was issued to him and he was credited for the 200 shares directly from the stock certificate book. Additional stock was acquired by him on transfer from other stockholders on February 11 and 25, and on May 20. On July 12, Davis sold 300 shares to T. B. Reed. The debits and credits on that date show the method of treating the sale of a part of a block of stock. Instead of debiting Davis for the 300 shares he sold to T. B. Reed, he is charged with 500 shares and credited for 200 shares. Certificate 804 for 500 shares was canceled and two new certificates issued. One for 300 shares went to T. B. Reed, the other for 200 shares went to Davis. All debits and credits after the first one were posted from the stock transfer journal. This is indicated in the folio column by the letter T with page numbers.

Stock Transfer Journal

To facilitate the recording of shares transferred from one stockholder to another some companies use a stock transfer journal.

When used, this journal is the source of all postings to the capital stock subsidiary ledger except for the original issue of shares. It is operated the same as any other journal but its debits and credits are always to stockholders' accounts. A stockholder transferring stock is charged and the one to whom transferred is credited. The debits and credits are made in number of shares and not in dollars and cents.

The following is a suggested form for such a journal:

STOCK TRANSFER JOURNAL (Page 52)

Canceled Certificates				New Certificates				
Number	Shares	Owner Debited	F	Date	Number	Shares	Owner Credited	F
804	500	R. A. Davis	✓	July 12	1276	300	T. B. Reed	✓
				July 12	1277	200	R. A. Davis	✓
143	200	W. W. Moore	✓	July 13	1278	150	F. B. Short	✓
				July 13	1279	50	M. S. Jones	✓

In the illustration above R. A. Davis surrendered certificate 804 as he had sold 300 shares of the 500 which were represented by this certificate. Two new certificates were issued by the corporation, 1276 for 300 shares to T. B. Reed and 1277 for 200 shares to R. A. Davis. Certificate 804 was canceled and attached to its stub in the stock certificate book.

Corporations with stocks listed on the New York Stock Exchange are required to employ a transfer agency and a registrar who are not identical. Usually they are different trust companies. The corporation also cannot act as registrar of its own stock. This requirement is to prevent the false issue of stock by company officers.

Transfers of stock do not alter the number of outstanding shares as the debits and credits to the stockholders' accounts are equal. For this reason a summary posting of the transfer journal to the controlling account Capital Stock is never necessary.

Proprietorship in the Corporate Balance Sheet

The following treatment of proprietorship accounts on the balance sheet is recommended:

X. Y. Z. COMPANY

BALANCE SHEET, DECEMBER 31, 19A

Assets (Various)			$700,000.00
Liabilities (Various)			200,000.00
Proprietorship			$500,000.00
Capital Stock:			
6 Per Cent Preferred Stock Authorized		$200,000.00 (a)	
Less: Treasury Stock		20,000.00 (b)	
Outstanding		$180,000.00 (d)	
Common Stock Authorized	$400,000.00 (a)		
Less: Unissued	150,000.00 (c)		
Outstanding		250,000.00 (d)	
Surplus		70,000.00	
Total Proprietorship			500,000.00

The information needed in the proprietorship section of a balance sheet may be obtained as follows:

a. The amount of capital stock authorized is constant; it appears in the corporate charter, and usually on each stock certificate and on each balance sheet. In this text no account is kept for it.

b. The amount of treasury stock may be obtained from a general ledger account captioned Treasury Stock and recorded at par value.

c. The amount of unissued capital stock may be obtained by subtracting the issued capital stock from the authorized capital stock. The balance of the Capital Stock controlling account is the issued stock.

d. The amount of the outstanding capital stock may be obtained from the Capital Stock controlling account in the general ledger if there is no treasury stock. If treasury stock is a factor, the outstanding capital stock should agree with the excess of the Capital Stock controlling account over the Treasury Stock account. The balance of the controlling account Capital Stock—Preferred in the above balance sheet is $200,000.00 as all the preferred stock is issued. The balance of the controlling account Capital Stock—Common in the above balance sheet is $250,000.00, the amount of the issued common stock.

Sometimes the proprietorship section of a balance sheet indicates only the amount of stock issued. In such a case a footnote

to the balance sheet should refer to the amount of stock authorized but unissued.

QUESTIONS

1. *a.* Would you say that a corporation might need to use all the accounting books and records previously described for a sole proprietorship?
   b. The problems peculiar to corporation accounting relate more particularly to the treatment and showing of the assets, the liabilities, or the net worth of the company?
2. *a.* What is a corporation?
   b. May a particular corporation have as few members as a particular partnership?
   c. Which is more likely to have many members—a partnership or a corporation?
   d. Do you know how many stockholders the American Telephone and Telegraph Company has? The Pennsylvania Railroad?
   e. Does a member of a corporation have anything to show for his membership? What?
3. *a.* Under what authority does a corporation exist?
   b. Explain how a corporation is formed.
4. Can you give any advantages of the corporate over the partnership type of organization? Any disadvantages?
5. *a.* A stockholder's participation in a corporation is evidenced by a ____________?
   b. A stockholder's interest in a corporation is represented by the ownership of so many ____________ of ____________?
6. May the amounts of the *capital* and the *capital stock* of a corporation be different? Explain.
7. What is meant by authorized capital stock? Unissued capital stock? Subscribed capital stock? Outstanding capital stock?
8. *a.* What do you mean by a *share* of stock?
   b. What rights, ordinarily, accompany the ownership of a share of stock?
9. What do you mean by common stock? Preferred stock? Treasury stock? Par value stock? No par value stock?
10. Assume *A* is worth \$50,000.00. What is the limit of his possible losses, ordinarily, if he starts his own business and invests \$10,000.00 in it? If he invests \$10,000.00 in the stock of a corporation by purchasing 200 shares at \$50.00 a share? Explain in both instances.
11. If a corporation uses par value stock and has not distributed all of its profits, in what account are the profits shown? Would it be satisfactory to show them in the Capital Stock account? Explain.

12. What do you mean by *surplus? Deficit?*

13. In what two ways may the net worth of a corporation be determined?

14. Would it be possible to have a deficit and still have a balance of cash? Explain.

15. If a corporation has a Surplus account of $80,000.00 must it have a cash balance of at least $80,000.00? Explain.

16. The records of the Rex Novelty Company show a substantial profit at the end of the year. No profits were distributed during the year and there is no cash available with which to distribute them. Account for this condition.

17. *a.* How may treasury stock be shown on the balance sheet? Unissued stock?

b. Should preferred stock and common stock be consolidated or shown separately on a balance sheet? Why?

18. Why does not a corporation show accounts with its various stockholders on its general ledger? Where does it show them?

19. *a.* What is the title of the general ledger controlling account for common stock? For preferred stock?

b. In what respect is a subsidiary ledger for stockholders peculiar?

c. What records would a corporation keep of the fact that it sold 200 shares of common stock to Harvey Adams at par $50.00 a share?

d. What records would the corporation referred to in *c* keep, if Harvey Adams sold 50 of his shares to Wilson Campbell at $80.00 a share?

e. What effect, if any, would the facts of *d* have on the general ledger controlling account for common stock?

f. What is the evidence of control between the general ledger controlling account for common stock and its subsidiary ledger?

20. *a.* What do you mean by a *minute book?*

b. What do you mean by a *subscription record?*

21. What is a stock certificate book? What does it show?

22. *a.* What happens to a partnership, if a partner withdraws?

b. What happens to a corporation, if a stockholder sells his interest to another person?

c. How do you think you could sell some stock you owned, if the stock is listed on the New York Stock Exchange?

d. Do you have to do anything to and with your stock certificate when you sell some shares? What?

CHAPTER XXIV

CORPORATIONS (*Continued*)

Unless otherwise noted, all references to capital stock and illustrations of capital stock accounts in this chapter pertain to par value stock.

After the corporation is created by the issuance of its charter and there has been a meeting of the incorporators and stockholders to elect directors, adopt bylaws, and complete the internal organization of the corporate body, it is possible to open the account books.

ENTRIES TO OPEN THE CORPORATE RECORDS

The first record to be made on the books of a corporation, like the first one to be made on the books of a partnership, is not a formal entry but a statement in the general journal about the opening of the enterprise. For the corporation it should indicate the date the books were opened, the date the charter was granted, the nature of the business, the amount of capital stock authorized, and the par value, if any, of the shares. This statement may be quite brief since its purpose is merely to mention some of the most important facts, the complete details of which are shown in the charter and the minute book.

The charter of a corporation states the amount of capital stock which the corporation is authorized to issue. Some accountants prefer to show that amount immediately in the accounts and make an entry for it. If the amount of the authorized capital stock is $150,000.00 the following entry is made:

Unissued Capital Stock	150,000.00	
Capital Stock Authorized		150,000.00
To record the amount of the authorized capital stock.		

The entry above seems quite unnecessary. Unissued capital stock is not an asset of the corporation; it is a potential asset, but potential assets are not shown on the books. The capital

stock authorized need not be shown in an account; it is referred to in the opening explanatory record in the general journal and is stated in the charter.

It is quite a common practice for corporations to be authorized by charter to issue an amount of capital stock in excess of immediate needs. The amount of authorized capital stock over the amount required at the time of organization provides for capital stock expansion at a later date, without the necessity of having the charter amended.

If the authorized capital stock exceeds the amount issued, the stockholders should regularly be informed of that fact. Methods of giving them this information were discussed in the last chapter in connection with the balance sheet of a corporation.

Stock Issued for Cash

Assume the figures of the previous illustration. A corporation is authorized to issue $150,000.00 of capital stock, 1,500 shares with a par value of $100.00 each. Suppose $100,000.00 of that amount is issued to stockholders for cash. The remaining $50,000.00 of capital stock is not to be issued at this time. The only entries necessary are

CASH RECEIPTS JOURNAL (Page 1)

Date		Account	Explanation	F	Credit: General Ledger		Credit: Accounts Receivable		Debit: Sales Discounts		Debit: Cash	
19__												
Jan.	2	Capital Stock	Mr. A for 120 shares		12,000	00					12,000	00
	2	Capital Stock	Mr. B for 180 shares		18,000	00					18,000	00
	3	Capital Stock	Mr. C for 60 shares		6,000	00					6,000	00
	3	Capital Stock	Mr. D for 240 shares		24,000	00					24,000	00
	4	Capital Stock	Mr. E for 300 shares		30,000	00					30,000	00
	4	Capital Stock	Mr. F for 100 shares		10,000	00					10,000	00

It should be noticed that each credit was made to the Capital Stock account. A stockholder does not have an account in the general ledger. Each stockholder receives a credit in the capital stock subsidiary ledger for the number of shares issued to him. The capital stock subsidiary ledger credit postings are made from the capital stock certificate book.

The above facts when posted to the general ledger involve only two accounts, as follows:

Cash

19__											
Jan.			CR	100,000	00						

Capital Stock

						19__					
						Jan.	2		CR 1	12,000	00
							2		CR 1	18,000	00
							3		CR 1	6,000	00
							3		CR 1	24,000	00
							4		CR 1	30,000	00
							4		CR 1	10,000	00

The debit to Cash would not be made until the end of the month when the $100,000.00 would be included as part of a larger figure.

The Capital Stock account is a controlling account which controls the subsidiary capital stock ledger. In the capital stock ledger each stockholder's interest is indicated by the number of shares credited to him. The total share credits of the capital stock ledger multiplied by $100.00, the par value of a share, gives $100,000.00, which is the same amount as the balance shown by the Capital Stock account.

Stock Issued for Physical Property Other Than Cash

Assume the same figures as before, authorized capital stock $150,000.00, par value of a share $100.00, amount of stock to be issued at this time $100,000.00. Assume further that Messrs. A, B, C, D, and F pay cash for their stock, but that the board of directors of the corporation has agreed to accept certain other assets from Mr. E.

The entries to record the receipt of cash from A, B, C, D, and F are exactly the same as illustrated previously.

In order to acquire the assets, other than cash, of the business owned by Mr. E, the directors agreed to issue $30,000.00 of stock to him and to assume the liabilities of the enterprise. The balance sheet of the business acquired from Mr. E is as follows:

MR. E

Balance Sheet, January 2, 19__

Assets

Current Assets:			
Accounts Receivable—Schedule A		$ 9,000.00	
Less: Reserve for Bad Debts		450.00	$ 8,550.00
Inventory of Merchandise			10,000.00
Total Current Assets			$18,550.00
Deferred Charges:			
Prepaid Insurance			350.00
Fixed Assets:			
Land		$ 4,000.00	
Buildings	$15,000.00		
Less: Reserve for Depreciation	1,500.00	13,500.00	
Office Furniture and Fixtures	$ 4,000.00		
Less: Reserve for Depreciation	1,000.00	3,000.00	
Machinery	$15,000.00		
Less: Reserve for Depreciation	3,750.00	11,250.00	
Total Fixed Assets			31,750.00
Total Assets			$50,650.00

Liabilities

Current Liabilities:	
Accounts Payable—Schedule B	$ 9,650.00
Fixed Liabilities:	
Mortgage Payable	11,000.00
Proprietorship	
Mr. E	30,000.00
Total Liabilities and Proprietorship	$50,650.00

The schedules of Accounts Receivable and Accounts Payable attached to the balance sheet are

Schedule A
Accounts Receivable

S. Powell	$1,600.00
B. Ash	1,400.00
L. Leidy	3,000.00
J. Torrey	2,000.00
G. Neff	1,000.00
	$9,000.00

Schedule B
Accounts Payable

B. Gleason	$2,500.00
H. Schriver	3,750.00
T. Lowry	3,400.00
	$9,650.00

It is assumed further that the directors of the corporation had the assets of the business of Mr. E appraised and that the appraisement figures showed the balance sheet figures to be

GENERAL JOURNAL
January, 19__

Debit			F	Date Debit and Credit Accounts Explanation	F	Credit		
Accounts Payable	Accounts Receivable	General Ledger				General Ledger	Accounts Receivable	Accounts Payable
				2				
	1,600 00			S. Powell				
	1,400 00			B. Ash				
	3,000 00			L. Leidy				
	2,000 00			J. Torrey				
	1,000 00			G. Neff				
		10,000 00		Inventory of Merchandise				
		350 00		Prepaid Insurance				
		4,000 00		Land				
		13,500 00		Buildings				
		3,000 00		Office Furniture and Fixtures				
		11,250 00		Machinery				
				Reserve for Bad Debts		450 00		
				Mr. E.—Vendor		50,650 00		
				To record the assets obtained from Mr. E.				
		20,650 00		Mr. E.—Vendor				
				B. Gleason				2,500 00
				H. Schriver				3,750 00
				T. Lowry				3,400 00
				Mortgage Payable		11,000 00		
				To record the liabilities of Mr. E assumed by the company.				
		30,000 00		Mr. E.—Vendor				
				Capital Stock		30,000 00		
				To record the stock issued to Mr. E.				

correct. To record the acquisition of the assets and the assumption of the liabilities of the business of Mr. E, as well as the issuance of stock to him, the entries shown on page 365 are made in the general journal of the corporation.

The first of the previous entries records the assets on the books of the corporation at the values at which acquired. In this illustration the values at which acquired are identical with the book values shown on the books of Mr. E. It is not necessary, however, for the corporation to set up on its books the reserve for depreciation accounts which appear on Mr. E's books. Very often, the values at which assets are acquired differ considerably from the book values at which they appear on the books of the vendor.

In the case of accounts receivable, the corporation receives from Mr. E claims on customers in the amount of $9,000.00 but which claims are valued by the corporation at $8,550.00, the same figure at which Mr. E valued them. In order to show on its books the $9,000.00 total amount of accounts receivable it will endeavor to collect, as well as its estimate of their value, it is necessary for the corporation to debit the various customers for the full amount of the claims on them, a total of $9,000.00, and to credit Reserve for Bad Debts for $450.00.

Stock Issued for Intangible Property

Assume the same general facts as in the last illustration. A, B, C, D, and F pay cash for their stock but E pays by transferring to the corporation the assets of his going enterprise. Suppose the asset and liability figures of the business of Mr. E are the same except for inventory of merchandise which is $4,000.00 instead of $10,000.00 as before. If the inventory of merchandise is only $4,000.00 then the net worth of the business of Mr. E, according to his books, is only $24,000.00.

The business of Mr. E may have an established business reputation which reflects itself in his net profits and the directors of the corporation may be willing to pay for that reputation. If so they are paying for the asset goodwill.

If an appraisement of the assets of Mr. E's business shows them to be stated on the books at fair values and the corporation gives Mr. E $30,000.00 in stock for his equity in his enterprise, it is paying for $6,000.00 of goodwill.

The entry to record these facts is the same as before except that Inventory of Merchandise is debited for $4,000.00 and the asset Goodwill is debited for $6,000.00.

There are other forms of intangible property besides goodwill, as explained under the heading *fixed assets* in Chapter II. Such intangible property may constitute very productive assets to the enterprise which purchases them.

Stock Issued for Services

There are quite a few expenses incident to the organization of a corporation, among which are: charter fees to be paid to the state in which the enterprise is incorporated, costs of preparing the stock certificates, legal fees, and sometimes accounting and engineering fees. Very often one or more of the incorporators pay these fees personally and take stock in the corporation in satisfaction of their claims. Whether these expenses are finally paid by the corporation in cash or capital stock, the debit is to the same account Organization Expense. This account represents an expense which benefits the corporation throughout its entire life and, theoretically, might be prorated over that period of time. Practically, Organization Expense, since it has no realizable value, is written off as rapidly as possible by charging it to Surplus, preferably within a period of four or five years. For federal income-tax purposes such a write-off is not a deductible item from gross income. As long as the Organization Expense account is open on the books it is in the nature of a prepaid expense and usually is included in the balance sheet in the deferred charge section.

Stock Issued at a Discount

State laws may prohibit the issuance of par value stock at less than par value. Where allowed, the owners of such stock may be liable to creditors for the amount of the difference. Par value stock, regardless of the price at which issued, must be recorded in the Capital Stock account at par value. Assume that $100,000.00 of par value stock is issued for cash at 95 per cent of par. The entry to record these facts, presented, for the sake of simplicity in general journal form, is

Cash	95,000.00	
Discount on Capital Stock	5,000.00	
Capital Stock		100,000.00
To record the issue at 95 per cent of par value, of $100,000.00 of stock to Messrs H, I, and J.		

The Discount on Capital Stock account is not an expense to be written off against Profit and Loss. Sometimes it is shown on the asset side of a balance sheet and although not an asset no harm may result if readers of the balance sheet examine it thoroughly. A better method of showing discount on capital stock on the balance sheet is to deduct it from capital stock as follows:

PROPRIETORSHIP

Capital Stock Authorized	$150,000.00	
Less: Unissued	50,000 00	
Outstanding	$100,000.00	
Less: Discount on Capital Stock	5,000.00	
Paid-in Capital		$95,000.00

If a corporation with Discount on Capital Stock account on its books accumulates a surplus in excess of the discount, it may charge the Discount on Capital Stock to Surplus. In so doing it is denying the stockholders the right to dividends out of accumulated profits to the extent that they have been used to make the stock full paid.

Stock Issued at a Premium

If stockholders pay in excess of par value for their stock, the stock is said to have been issued at a premium. The premium contributed by the stockholders is not a profit to the corporation, it is a part of its invested capital. Assume that $100,000.00 of capital stock is issued for cash at a premium of 5 per cent. The debits and credits involved are shown by the following entry:

Cash	105,000.00	
Capital Stock		100,000.00
Premium on Capital Stock		5,000.00
To record the issue at 105 per cent of par value, of $100,000.00 of stock to Messrs. O, P, and Q.		

On the balance sheet, premium on capital stock belongs in the proprietorship section. It may be shown as premium on capital stock or as paid-in or capital surplus.

Stock Subscriptions

All the illustrations of this chapter, thus far, have assumed immediate payment for stock. Very often stock is sold well in advance of payment for it. The sale of the stock is evidenced by signed subscriptions through which the subscribers agree to pay for the stock. These subscriptions are an asset to the corporation. They indicate also the obligation of the corporation to issue its stock to the subscribers upon payment of their subscriptions. Both sets of facts are recorded on the books.

Assume a corporation obtained subscriptions for 1,000 shares of its stock, par value $100.00. Both the asset of the corporation and its obligation to issue stock upon the payment of subscriptions are recorded by the following general journal entry:

Subscribers to Capital Stock	100,000.00	
Capital Stock Subscribed		100,000.00
To record the receipt of subscriptions, as shown by the subscription lists.		

When payment is received by the corporation for subscriptions, the entry is made

Cash	100,000.00	
Subscribers to Capital Stock		100,000.00
To record the receipt of cash from subscribers to capital stock.		

After subscriptions are paid in full, stock certificates are issued. An entry is necessary to indicate that the corporation has met its obligation to issue stock to the subscribers. This entry is

Capital Stock Subscribed	100,000.00	
Capital Stock		100,000.00
To record the issue of stock certificates to full-paid subscribers.		

If approved by the board of directors of the corporation, subscriptions may be paid for in services or any form of property, tangible or intangible, as well as by cash.

A corporation may not have immediate need for all the cash represented by subscriptions to capital stock and may call for

payments by installments. As an installment is called, the date for its payment is fixed and the amount of the installment becomes due in the nearer future than the uncalled balance of the Subscribers to Capital Stock account. This change in the status of the Subscribers to Capital Stock account is represented on the books by the entry

Installment No. 1	40,000.00	
Subscribers to Capital Stock		40,000.00
To record the call for a payment on January 15, of 40 per cent of subscriptions.		

Each call on subscribers is represented by its own installment account in the general ledger.

On January 15, when payment is received, the entry is

Cash	40,000.00	
Installment No. 1		40,000.00
To record the receipt of cash for installment No. 1.		

Suppose a corporation with an authorized capital stock of $150,000.00 sold $100,000.00 by subscription. Suppose also that a call of 40 per cent was made on subscribers and paid and that a second call of 20 per cent was made but is not due. These facts would be presented in the balance sheet of the corporation as follows:

ASSETS		LIABILITIES		
Current Assets		None		
Cash	$40,000 00	PROPRIETORSHIP		
Installment No. 2 .	20,000.00	Capital Stock		
Subscribers to Capital Stock	40,000 00*	Authorized. .	$150,000 00	
		Less: Unissued..	50,000 00	
		Subscribed but Unissued .		$100,000.00

* To be be called within a year.

Ordinarily capital stock is not issued until subscriptions are paid in full. Sometimes a corporation has no need for the payment of subscriptions beyond a certain percentage and issues its stock appropriately marked as to the amount paid thereon. Suppose a corporation with an authorized capital stock of $150,000.00 obtained subscriptions for $100,000.00. After $60,000.00 was called and collected, the company found it did not need the remaining 40 per cent and issued stock marked

60 per cent paid to its subscribers. Since there is no intention of calling the remaining $40,000.00 of subscriptions, a balance sheet presentation of the unpaid subscriptions may be shown better as a deduction in the proprietorship section than as an asset. If included as an asset, the uncalled subscriptions should not be classed as a current asset but should be listed at the bottom of the assets as a special asset under a heading such as Other Assets. The better treatment is

PROPRIETORSHIP		
Capital Stock Authorized.	$150,000.00	
Less: Unissued.	50,000.00	
Subscribed...... ..	$100,000.00	
Uncalled Subscriptions.	40,000.00	
Capital Paid In........		$60,000.00

If the charter of a corporation provides for more than one class of stock it is necessary to keep separate records for each class. On the books of a company there may appear accounts with debit balances, such as Subscribers to Common Stock, Subscribers to First Preferred Stock, Subscribers to Second Preferred Stock, Installment No. 1—First Preferred Stock, and so on. There may be accounts with credit balances, such as Common Stock Subscribed, First Preferred Stock Subscribed, and Second Preferred Stock Subscribed. After subscriptions are paid in full and the various classes of stock are issued, there are credit balance accounts, such as Common Stock, First Preferred Stock, and Second Preferred Stock.

Subscriptions in Default

It may happen that a subscriber does not complete payments on his subscription. The action to be taken by the corporation depends in part on the laws of the state in which the company is incorporated. The stock of the defaulting subscriber sometimes may be considered forfeited to the corporation and may be resold by it. Sometimes the stock is resold and the defaulting subscriber charged with any resulting loss. The entries depend on the legal action taken, but any gain to the corporation does not represent a current Profit and Loss item. It is an amount to be transferred to proprietorship as an additional capital contribution.

TREASURY STOCK

Treasury stock should not be confused with unissued stock. The latter has never been issued but the former has been outstanding. If unissued stock is issued at a discount, it may carry a liability to creditors for the amount of the discount, in case the corporation is not able to meet its debts. On the other hand, treasury stock ordinarily carries no such liability. Treasury stock is full-paid, nonassessable stock reacquired but not canceled by the issuing company.

Although a debit balance account on the books, Treasury Stock is not an asset. It is a partial offset to the Capital Stock account. The amount by which the credit balance of Capital Stock exceeds the debit balance of Treasury Stock represents the stock outstanding in the hands of stockholders. It is hardly sound reasoning to consider that some of its own reacquired stock is an asset with which to meet claims of the corporation's creditors. Nevertheless it sometimes is shown as an asset.

Treasury stock should not be included in the account Investments along with the stocks and bonds of other companies which may be owned. It should be shown on the books in the separate account Treasury Stock and on the balance sheet as a deduction from capital stock authorized.

A company sometimes reacquires its own stock in order to cancel it. Cancellation requires certain legal procedure on the completion of which treasury stock ceases to be treasury stock. Cancellation definitely reduces the capital stock of the company. If the laws of the incorporating state permit, its own stock may be reacquired by purchase in order to sustain the market for it or to have stock available for sale to employees. Treasury stock may be the result of a gift to the company by its stockholders. The company may need funds and its stock may not command par in the market. In order to provide a stock which may be sold at the prevailing market price and which is free from liability to creditors, the stockholders may donate some of their shares to the company. This is more likely to occur in companies whose stock has been issued originally for property or services on a rather excessive value basis. Treasury stock may be acquired for other reasons, *i.e.*, by gift of stockholders

to eliminate an accumulated loss or by acceptance from a stockholder in payment of a debt.

When treasury stock is acquired by a company the accounts of the former owners in the capital stock subsidiary ledger are charged and an account captioned Treasury Stock or headed with the name of the company is credited. The issued shares are still in existence and the subsidiary ledger must account for them.

Entries for Par Value Treasury Stock—If Donated

Since treasury stock is considered a partial offset to capital stock, it should be recorded at par value. In the entries which follow it is assumed that $100.00 par value stock in the amount of $20,000.00, out of a total of $200,000.00 issued, is donated and later sold for $15,000.00. The donation is recorded by the entry

Treasury Stock	20,000.00	
Surplus from Donated Stock		20,000.00
To record the gift from stockholders of 200 shares of capital stock (10 per cent of their holdings.)		

The sale is recorded by the entry

Cash	15,000.00	
Surplus from Donated Stock	5,000.00	
Treasury Stock		20,000.00
To record the sale of 200 shares of treasury stock.		

The balance of $15,000.00 in the account Surplus from Donated Stock represents, in effect, an additional contribution from stockholders. The use of this special surplus account preserves an independent record of the source of this contribution to the company.

Entries for Par Value Treasury Stock—If Purchased

Purchased treasury stock, the same as donated treasury stock, is recorded at par value. Some of the entries for the purchase and sale of treasury stock are illustrated by the following transactions:

Assume a company purchases one of its own $100.00 par value shares at par. The entry is

Treasury Stock	100.00	
Cash		100.00
To record the purchase of a share of the company's own stock at par.		

If the share is resold at $110.00, the entry without explanation is

Cash	110.00	
Treasury Stock		100.00
Surplus from Sale of Treasury Stock		10.00

The account Surplus from Sale of Treasury Stock indicates an increase in capital contributions of stockholders and the source thereof.

Suppose a company purchased a $100.00 par share at $120.00. Presumably the company must have a surplus to a proportionate part of which the purchased share is entitled. The entry without explanation is

Treasury Stock	100.00	
Surplus Used for Treasury Stock	20.00	
Cash		120.00

If the company resells the share at $125.00 the entry without explanation is

Cash	125.00	
Treasury Stock		100.00
Surplus Used for Treasury Stock		20.00
Surplus from Sale of Treasury Stock		5.00

Suppose a company purchased a $100.00 par share at $90.00. The entry without explanation is

Treasury Stock	100.00	
Cash		90.00
Surplus from Treasury Stock Purchased		10.00

If the purchased stock is held and not resold, the account Surplus from Treasury Stock Purchased indicates the source of this addition to the surplus of the company.

If this share is sold for $96.00 the debits and credits are

Cash	96.00	
Surplus from Treasury Stock Purchased	10.00	
Treasury Stock		100.00
Surplus from Sale of Treasury Stock		6.00

Attention is called again to the fact that not all states permit the purchase of its own stock by a corporation. The propriety of such purchases, unless for retirement, is a debatable question. The theory on which the foregoing illustrations are based is that the acquisition of its own stock by a company, from an accounting standpoint, may be viewed in much the same manner as though the stock were canceled. Hence its entry at par value figures and the treatment of any profit arising from its resale as an increase in the capital contributions of stockholders. There is another theory which distinguishes between donated stock and purchased stock. Under this theory any profit arising out of the purchase and sale of its own stock is considered no different from a profit on other stocks, hence it is treated as income and not an additional capital contribution. This latter theory seems to fit cases where corporations deliberately deal in their own stock.

Classes of Treasury Stock

If a company has more than one class of stock it may have treasury stock for each class. It is important that each class of treasury stock, such as treasury stock common or treasury stock first preferred, be recorded in separate accounts since each is deducted on the balance sheet from its respective stock account.

A more exhaustive consideration of treasury stock is out of place in an elementary text and is left for intermediate and advanced books.

NO PAR VALUE STOCK

At the time a corporation starts business the par value of a share of its stock may not agree with the value of a share as shown on its books because the stock may have been issued at a discount or a premium. The par value may not be the same as the very first market price of a share. Certainly after a corporation is in existence for some time, the par or nominal value of a share may have little relation to its value as expressed either on the books of the enterprise or in the market place.

The use of par value stock provides certain temptations, such as the temptation to incorporators to overvalue the assets and

services for which stock is to be issued to them. It also furnishes the unscrupulous security salesman with a marked par value on the face of a stock certificate with which to take advantage of a prospective stockholder who may be uninformed in financial matters.

The idea that a share of stock is simply a unit of ownership participation in the affairs of a corporation, regardless of its nominal value, was emphasized in 1912 when New York State enacted a law to permit corporations to issue stock without any par or nominal value. Since then practically all states have enacted similar laws and no par value stock has been used extensively.

The use of no par value stock has not eliminated all the possible abuses to creditors, stockholders, and investors which may arise from the corporate form of organization. In fact its use brought new abuses which in the opinion of some writers are greater problems than the old ones. No par stock and the use of various classes of common stock, such as voting and nonvoting classes, have provided greater opportunity for the manipulation of corporations by insiders.

No par stock may be used for either or both common and preferred classes of stock and, when issued, is considered full paid and nonassessable. All stock in a given class need not be issued at the same price. It may be issued when necessary at such prices as it will command.

Entries to Record No Par Stock Issues

The same account titles are used to record the issue of no par stock as were used for par value stock, except that Discount on Capital Stock and Premium on Capital Stock are not necessary and the account titles for no par stock accounts are qualified to indicate that the stock is of no par value. Discount on Capital Stock and Premium on Capital Stock are not necessary since no par stock is never sold at a discount or a premium.

Assume a corporation is authorized to issue, in addition to par value preferred stock, 1,000 shares of no par common. Assume also that 500 shares of common are issued at $30.00 a share and later the remaining shares are issued at $35.00 a share. If issued for cash the entries are

Cash	15,000.00	
Common Capital Stock—No Par		15,000.00
To record the issue of 500 shares of no par common at $30.00 a share to Messrs. A, B, C, and D.		

Cash	17,500.00	
Common Capital Stock—No Par		17,500.00
To record the issue of 500 shares of no par common at $35.00 a share to Messrs. M, N, O, and P.		

If no par stock is issued for property other than cash, the various items of property both tangible and intangible are debited and the appropriate no par stock account is credited. The values at which the property is accepted by the corporation must be approved by the board of directors. No par stock may be issued also for services rendered to the corporation, particularly in connection with its organization. The number of shares to be issued and the value of the services must be approved by the board.

No par stock may be sold by subscription and paid by installments as called by the board. If so, account titles similar to those illustrated for par value stocks, are used. The capital stock subsidiary ledger is operated exactly the same for no par as for par value stock.

The entries just illustrated and the values used to indicate no par stock are in accord with all the principles previously developed and are recommended. They are not followed always in practice. Unless prohibited by law, a corporation may show no par stock at a value other than that at which it is issued. Such other value, if used, is determined by the stockholders or the board of directors of the corporation and is known as a *stated* value. A stated value is usually lower than the figure at which the stock is sold. In the illustration for which the last two entries were given, suppose the figure $10.00 was set as the stated value. In that case the two entries are as follows:

Cash	15,000.00	
Common Capital Stock—No Par		5,000.00
Paid-in Surplus		10,000.00
To record the issue of 500 shares of no par common at $30.00 a share to Messrs. A, B, C, and D.		

Cash	17,500.00	
Common Capital Stock—No Par		5,000.00
Paid-in Surplus		12,500.00
To record the issue of 500 shares of no par common at $35.00 a share to Messrs. M, N, O, and P.		

The amount received for the stock in excess of the stated value should be credited to the account Paid-in Surplus. The use of the account Paid-in Surplus indicates that the amount involved has been contributed to the corporation by its stockholders and has not been earned. Unfortunately there is often no legal compulsion to require the use of an account such as Paid-in Surplus for the amount paid in by stockholders in excess of the stated value.

Treasury Stock No Par

No par stock, like par value stock, may be donated to a corporation by its stockholders. If so, the entry to record it is

Treasury Stock—No Par	3,000 00	
Surplus from Donated Stock		3,000.00
To record the donation of 100 shares of stock at the value at which it was issued.		

The explanation of the above entry indicates that the value placed on the treasury stock is the value at which it was issued. Sometimes the donated treasury stock cannot be identified with a particular issue and its original value is not known. The stock may have been issued at different times and for varying amounts. In such a case the treasury stock may be valued at the average price at which all the stock was issued. If so, the entry to record the facts of the last illustration is

Treasury Stock—No Par	3,250 00	
Surplus from Donated Stock		3,250.00
To record the donation of 100 shares of stock at the average value at which it was issued.		

If the treasury stock is sold, the account Surplus from Donated Stock is increased, if the price exceeds the value at which Treasury Stock was debited; it is decreased, if the price is lower.

Some accountants advocate that no par treasury stock should not be recorded on the books by a formal entry, when it is

donated. Record of it is kept by a memorandum in the Treasury Stock account in the capital stock subsidiary ledger. The memorandum merely states the date received and the number of shares. Journal entry record is not made until the stock is sold. This method is not consistent with the orthodox plan of recording par value treasury stock. There are still other plans for recording donated no par treasury stock which are not considered here.

If no par treasury stock is purchased, it is recorded by entries similar to those recommended for par value treasury stock. It should be recorded in the treasury stock—no par accounts at the value at which it was issued. If the issuing figure cannot be determined, it is entered at the average price at which stock was issued. It is quite possible that treasury stock—no par may have to be entered in the treasury stock—no par accounts at the stated value and the difference between the stated value and the price paid may have to be shown in a surplus account.

No Par Stock on the Balance Sheet

Since no par stock is authorized by charter as a number of shares rather than an amount of stock and may be sold at varying prices, it is necessary to indicate authorized and unissued stock on the balance sheet by shares and not amounts.

PROPRIETORSHIP

Preferred Stock Authorized.	$100,000.00	
Less: Unissued	40,000.00	$ 60,000.00
Common Capital Stock—No Par		
5,000 Shares authorized		
1,000 Shares unissued		
4,000 Shares issued	$100,000.00	
200 Shares in treasury	5,000.00	
3,800 Shares outstanding		95,000.00
Paid-in Capital.		$155,000.00

For the sake of brevity in presentation, the number of shares authorized, unissued, and in the treasury are often referred to as in the illustration which follows. In this illustration assume the same facts but consider that the common stock issued is shown in the Common Capital Stock—No Par account at a stated value of $10.00 per share.

PROPRIETORSHIP		
Preferred Stock Authorized..................	$100,000.00	
Less: Unissued..............................	40,000.00	$ 60,000.00
Common Capital Stock—No Par authorized 5,000 shares; unissued 1,000 shares; in treasury 200 shares; outstanding 3,800 shares at stated value $10.00............		38,000.00
Capital Surplus....		57,000.00
Paid-in Capital.		$155,000.00

QUESTIONS

1. *a.* Give the general ledger accounts which are debited and credited if a corporation sells a total of 1,000 shares of its $50.00 par value common stock for cash to 171 different people.
   b. How does the corporation know who owns its stock and how much is owned by each person?
   c. What entry is made, if the 1,000 shares referred to in *a* are sold to the 171 different people but payment is not to be made until called by the directors of the company?
   d. Assume the facts in *c.* What entry is made when a call is issued for 50 per cent of the amount due, payment to be made one month later? What entry when payment is made?
2. May stock be issued for cash? For physical property other than cash? For intangible property, if so what? For anything else?
3. *a.* Name several items which are chargeable to Organization Expense.
   b. Does Organization Expense ever appear on a balance sheet; if so in which section and how can you justify its appearance there?
4. Does Organization Expense remain on the books permanently? If not, approximately how long? If ever eliminated, that result is accomplished by a charge to what account?
5. *a.* Is Discount on Stock an expense, asset, income, proprietorship, or liability account?
   b. Does Discount on Stock appear on the balance sheet or statement of profit and loss? In which section?
   c. If the company is very successful, what is likely to happen to the Discount on Stock account?
6. *a.* On the books of a company the account Premium on Stock appears with a credit balance of $10,000.00. Tell the story which is indicated by that account.
   b. Would you consider Premium on Stock a part of Surplus? If so what kind of surplus would you label it?

7. On a balance sheet you notice among the assets the following two accounts: Installment No. 3, $10,000.00 and Subscribers to Capital Stock, $30,000.00. What story comes to your mind as the result of seeing these two accounts?
8. On a balance sheet you notice the following items:

Capital Stock Authorized	$200,000.00	
Less: Unissued	75,000.00	
Subscribed but Unissued		$125,000.00

Tell everything you can about this company.
9. *a.* What is treasury stock?
   b. Should the Treasury Stock account have a debit or credit balance?
   c. Is treasury stock an asset? Explain.
   d. How is treasury stock shown on the balance sheet?
   e. What happens to the Treasury Stock account, if the treasury stock is canceled?
   f. How may treasury stock be acquired?
   g. Suppose treasury stock is acquired from stockholder *X*. What debit and credit are made in the subsidiary ledger for stockholders?
10. *a.* Give the entry if one share of treasury stock is acquired for cash at par $50.00.
    b. Give the entry if acquired for cash at $45.00.
    c. Give the entry if acquired for cash at $55.00.
    d. Give the entry if the share in *a* is sold for $59.00 cash.
    e. Give the entry if the share in *b* is sold for $63.00 cash.
    f. Give the entry if the share in *c* is sold for $47.00 cash.
11. What entry may be made if a corporation sells
    a. 100 shares of no par common stock for cash at $15.00 a share?
    b. Another 100 shares for cash at $17.00 a share?
    c. Suppose a company uses a stated value of $5.00 for each share of no par common stock. Suppose also it sold 100 shares to the public at $10.00 a share. What entry is made?
12. How could a company show the following facts on its balance sheet? Common stock—no par authorized 2,500 shares; unissued 1,500 shares; in the treasury 100 shares at stated value of $5.00 a share; outstanding 900 shares at the stated value of $5.00 a share.
13. A corporation with common stock of $200,000.00 and a deficit of $80,000.00 exchanges all of its $100.00 par value stock for no par value stock on the basis of one share of no par value for two shares of the old par value stock. The no par stock has a stated value of $10.00 a share.

a. What is the effect on the balance sheet?

b. What entry would record this exchange? What other entry would be made, most likely?

c. Would the above occurrence completely transform the picture of the financial condition of this company?

d. Is the company in any better financial condition after the exchange of stock than before?

CHAPTER XXV

CORPORATIONS (*Concluded*)

Every entry and every account illustrated in the two preceding chapters on corporations had some connection with the issuance, reacquisition, or resale of its capital stock by a corporation. Very little reference was made to any other entries and accounts peculiar to a corporate enterprise. There is no difference between a corporation and a partnership or a sole proprietorship with respect to the methods used to record and post cash, sale, purchase, note, and all other transactions which involve business contacts of the enterprise with its customers and creditors. There is no difference in the method of taking a trial balance or adjusting the books, but a minor variation in procedure is necessary in the process of closing the books.

Closing the Books of a Corporation

The process of closing the books is exactly the same for a corporation as for a partnership or a sole proprietorship with respect to the transfer of the nominal account balances to the summary account Profit and Loss, at the end of a fiscal period. The balance of the Profit and Loss account is transferred in sole proprietorships and in partnerships to the owners' accounts. In a corporation with par value stock, the balance of Profit and Loss is transferred to the Surplus account; it is not transferred to the Capital Stock account. The latter account reflects the par value of issued stock and is not increased or decreased by the amount of any net profit or loss.

The balance of Profit and Loss may be transferred to Capital Stock where no par value stock is used, but it should not be. A no par value capital stock account is not regulated by any par value, so that the balance of Profit and Loss may be combined with it. This practice is not approved because a Capital Stock account should preserve a record of the original contributions of the owners at par value figures or in the case of no par stock at stated or at issuing values, preferably the latter. Further-

more, any increase or decrease in net worth from the amounts represented by the original contributions of the stockholders should be shown under separate account titles. In any corporation whether par or no par stock is used the balance of Profit and Loss should be transferred to the account Surplus.

Surplus

Surplus was defined in Chapter XXIII as the excess of the assets over the liabilities and capital stock of an enterprise. It does not represent cash or any other specific asset. It is simply an excess of the book value of all assets over the book value of the liabilities and the amounts shown in the capital stock accounts.

Undivided Profits

Undistributed profits are accumulated sometimes in the account Undivided Profits. If so, that account is really an addition to the Surplus account. Bank statements frequently distinguish surplus from undivided profits to indicate by the former the amount of surplus the bank intends to retain and by the latter the amount which the board of directors desires to be free for the payment of dividends or appropriation by the board.

Classification of Surplus

There are two main classes of surplus—earned and capital.

Earned surplus arises from the successful operation of the business. Profits not distributed are accumulated in the Surplus account, which account, unless otherwise qualified, represents earned and free surplus. Earned surplus is sometimes appropriated—earmarked—by action of the board of directors for a particular purpose, in which case it is known as *appropriated surplus.* The appropriation of surplus is an action taken by a board of directors to retain profits in the enterprise for a particular purpose and to indicate that the amount earmarked is not available for a dividend distribution. A board may appropriate surplus for such purposes as the extension of plant facilities, for the retirement of a particular long-term liability, or as a margin of safety against possible unforeseen losses.

Surplus appropriated for particular purposes is shown under special account titles, such as Surplus—Reserve for Sinking Fund

and Surplus—Reserve for Plant Extension, usually abbreviated, however, to Reserve for Sinking Fund and Reserve for Plant Extension. Unappropriated, earned surplus is known as *free* surplus. Free surplus is available for dividends. The balance of the Surplus account usually represents earned and free surplus.

Capital surplus is unearned surplus which arises from other than operating sources. Under this heading are included any surplus items which result from transactions, such as the original sale of capital stock at a premium, donations of stock or assets, or assessments on full-paid stock. If a corporation for any reason appreciates the value of its assets as the result of an impartial appraisal, the offsetting credit may be made to Capital Surplus but a better treatment is to credit a special surplus account. A suggested title is Surplus Arising from Revaluation of Assets or simply Revaluation Surplus.

Appropriated Surplus Accounts

Appropriated surplus accounts such as Reserve for Sinking Fund, Reserve for Plant Extension, and Reserve for Contingencies are created by debits to Surplus and credits to the particular appropriated surplus accounts. When the purpose for which an appropriated surplus account is established no longer exists, its balance is transferred back to Surplus and becomes available for dividend declarations. A more complete discussion of appropriated surplus accounts is withheld for the next chapter.

Surplus Adjustments

1. *For Errors of Past Periods.* The process of adjusting the books at the end of a period is exactly the same for a corporation as for a partnership or a sole proprietorship. Occasionally, during a period or at the time periodic adjustments are being made, errors of prior periods are discovered. These errors should be handled in such a manner that the operating results of the current period are not disturbed by them. They represent debits and credits to Surplus rather than Profit and Loss.

Assume several errors made at the end of the last period are discovered in the current period, namely: a $1,000.00 undervaluation of inventory of merchandise and clerical mistakes which understated the depreciation of buildings by $500.00 and the estimated bad-debt provision by $300.00.

All these errors affect net worth as shown at the end of the last period and are adjusted through the Surplus account. The understatement of inventory of merchandise resulted in an undervaluation of assets and net worth. The understatement of the two reserve accounts overvalued assets and net worth. These errors are corrected by the following entries made at the time of discovery:

Inventory of Merchandise, Dec. 31, 19__	1,000.00	
Surplus		1,000.00
To correct an undervaluation of inventory of merchandise at the end of the previous period.		
Surplus	800.00	
Reserve for Depreciation of Buildings		500.00
Reserve for Bad Debts		300.00
To correct errors in listing amounts provided for the above two reserve accounts at the end of the last period.		

2. *For Nonoperating and Unusual Profits or Losses.* Any unusual profit or loss item which is not expected to recur regularly may be closed to Surplus rather than Profit and Loss. A loss from such occurrences as a fire or a robbery which was much more than a minor theft is an unusual item. A profit from the sale of land or buildings which had enhanced in value from neighborhood changes is an exceptional item. Some accountants feel that the Profit and Loss account of a current period should not be affected by such unusual items and that they are absorbed better in Surplus.

Changes in net worth which result from over- or underconservative actions of the past are absorbed in the Surplus account rather than Profit and Loss. Thus a revaluation of fixed assets downward because of failure to provide adequate depreciation in the past is not a profit and loss item from current operations.

The practice of closing unusual profit and loss items to Surplus and the usual operating nominal account balances to Profit and Loss causes the latter account to reflect the results of current operations only. The figures of Profit and Loss may be compared, therefore, period by period to determine the trend of operating results.

Illustrations of Surplus and Capital Surplus Accounts

The following illustrations indicate the usual type of debits and credits to the two main surplus accounts.

Surplus (earned surplus)

Debited for		Credited for	
1. A debit balance of Profit and Loss	xxx	1. A credit balance of Profit and Loss	xxx
2. Nonoperating and unusual losses, such as thefts, fire loss, and revaluation of fixed assets downward due to inadequate allowance for depreciation in the past	xxx	2. Nonoperating and unusual profits	xxx
3. Dividends declared	xxx	3. Errors of past periods which increase net worth	xxx
4. Errors of past periods which decrease net worth	xxx	4. Elimination or decrease of an appropriated surplus account.	xxx
5. Creation or increase of an appropriated surplus account.	xxx		

The third item on the debit side—dividends declared—is considered later in this chapter.

Capital Surplus

Debited for		Credited for	
1. Discount on Capital Stock	xxx	1. Premium on Capital Stock	xxx
2. Revaluation downward of fixed assets previously written up.	xxx	2. Revaluation of fixed assets upwards	xxx
		3. Donations	xxx
		4. Assessments on full-paid stock	xxx

Each of the items in Capital Surplus should be a separate ledger account. The second item on the credit side is shown better in a separate account which is not closed to Capital Surplus, such as Surplus from Revaluation of Assets or Revaluation Surplus.

Surplus on the Balance Sheet

In order that the net worth of the corporation may be shown in one section of the balance sheet, surplus should follow capital stock in the proprietorship section.

Proprietorship				
Capital Stock Authorized. . . .		$150,000.00		
Less: Unissued..................		50,000.00		
Outstanding..................................			$100,000.00	
Surplus:				
Earned:				
Free:..		$ 35,000.00		
Appropriated:				
Reserve for Plant Extension........	$10,000.00			
Reserve for Contingencies........	10,000 00	20,000.00		
		$ 55,000.00		
Capital Surplus		25,000.00	80,000.00	
Net Worth.....				$180,000.00

Statement of Surplus

To explain changes in surplus during a fiscal period, without burdening the formal balance sheet, a supplementary statement is usually prepared.

Statement of Free Surplus			
Initial balance, January 1, 19__..............			$40,000.00
Adjustments for errors of past periods:			
Increasing net worth:			
Understatement, Inventory, January 1, 19__		$ 1,000.00	
Decreasing net worth:			
Understatement, Reserve for Depreciation of Buildings.............	$500.00		
Understatement, Reserve for Bad Debts........................	300.00	800.00	200.00
Adjusted surplus, January 1, 19__...........................			$40,200.00
Add:			
Net profit, January 1 to December 31, 19__....		$27,300.00	
Damages from Breach of Contract..		500.00	27,800.00
Total..			$68,000.00
Less:			
Addition to Reserve for Plant Extension.......		$ 5,000.00	
Appropriated as Reserve for Contingencies.....		10,000.00	
10 per cent cash dividend declared and paid....		10,000.00	
Fire loss not covered by insurance............		8,000.00	33,000.00
Final balance as shown by the balance sheet...............			$35,000.00

The above statement of free surplus is prepared on the same general principles as the statement of the analysis of proprietorship in Chapter III. A similar statement for Capital Surplus is not necessary usually, since a change in the balance of that account is infrequent.

If there are changes in the Capital Stock account during a period, too numerous to show conveniently in the formal balance sheet, a separate statement is prepared for it.

Deficit

A deficit is the amount by which the liabilities and capital stock of an enterprise exceed the assets. It is the exact opposite of a surplus and indicates that the equity of the stockholders is less than the amounts shown in the capital stock accounts. If only one Surplus account is kept, a debit balance therein is a deficit. In such a situation the debit balance of Surplus may be transferred to a Deficit account.

A deficit should not be shown on a balance sheet as an asset. It should be shown as a subtraction in the proprietorship section. It may be eliminated from the records by charging it against subsequent additions to either Surplus or Capital Surplus accounts.

DIVIDENDS

The profits of a corporation are distributed to the stockholders by means of dividends declared by the board of directors.

Definition

A dividend is an amount to be distributed proportionately. The word also means the portion received or to be received by a person as well as the rate used to indicate the amount to be divided. From the viewpoint of a corporation the word refers usually to a proportionate distribution of profits to stockholders, of assets to creditors of an insolvent enterprise, and of assets to stockholders of a company in liquidation. At this time the discussion is limited to consideration of dividends as a means of distributing to stockholders all or part of the balance shown in the Surplus account.

Declared by Formal Action of the Board

Although a corporation may have accumulated sufficient profits to make a distribution among its stockholders, such an action is not taken except by formal resolution of the board of directors. The directors constitute the body to which authority to manage the enterprise is delegated by the stockholders and dividends are not declared until, in the judgment of the board, it is deemed wise to make a profit distribution. If the board feels that the assets of the corporation should be conserved for such purposes as the expansion of the enterprise, to prevent a decrease in the amount of current assets, or to entrench the company for an expected period of depression, it may reduce the amount of the dividend ordinarily paid or omit it altogether. Stockholders do not know whether they are to receive a share of the profits of their company until the board takes positive action thereon. Without the approval of a definite dividend resolution by the board, dividends are not paid.

Large corporations with many stockholders are not likely to distribute all accumulated profits. The boards of such companies prefer to maintain a regular dividend, usually paid quarterly, and to build up a substantial amount of surplus so that dividends may be continued during periods of poor business. The dividends paid in a particular period need not be earned in that period.

Dividends Paid from Earnings

It is a sound principle of accounting that dividends are payable only out of surplus earnings. In fact it is generally unlawful to distribute dividends which impair invested capital. Creditors view the amount shown in a Capital Stock account as a proprietary investment over which their claims take precedence. Any impairment of investment because of dividends reduces the protection afforded their claims. In a sole proprietorship or a partnership, withdrawals in excess of earnings are compensated by the fact that the private wealth of the owners is back of the debts of the enterprise. In a corporation this is not true; therefore, the law protects creditors by forbidding dividends which impair capital. Stockholders also, unless definitely advised to the contrary, view a dividend received

as a share of corporate profits and not as the return of a part of their investment.

As a matter of practice, the decision as to what amount of surplus is available for dividends is not an easy one, especially in cases of no par stock shown on the books at stated values. A complete discussion of the subject, surplus available for dividends, is a more appropriate topic for intermediate and advanced texts.

Declaration and Notice of a Dividend

The resolution of a board of directors to authorize a distribution of corporate profits to stockholders indicates the amount to be paid on each share. With par value stock the dividend is stated commonly as a percentage of par; with no par shares the declaration states the amount per share. The resolution states also the date declared, the date stockholders' names must be on record to receive the dividend, and the date of payment. A dividend notice is worded somewhat as follows:

THE A. B. C. COMPANY

March 1, 19__

The directors of the A. B. C. Company have this day declared a dividend of two per cent on the Common Capital Stock of the company, payable April 1, 19__ to stockholders of record at the close of business March 15, 19__.

Signed

____

Secretary

If the par value of a share is $50.00, the above notice indicates that the dividend is to be $1.00 a share, that it was declared on March 1 and is to be paid on April 1 to stockholders of record at the close of business March 15. If an investor purchases stock of this company prior to March 15 but the stock is not transferred to his name by that date, he does not receive the dividend from the company. He would have to obtain it from the person who sold him the stock. A purchaser of stock after March 15 does not receive the dividend since he purchased the stock, *ex-dividend*—without the right to receive the dividend.

Between March 15 and April 1 the company has opportunity to prepare the list of stockholders at the close of business on March 15 and to draw the dividend checks. Where there are

many stockholders it is customary to pay each dividend with checks drawn on a special dividend bank account opened for that purpose.

The declaration and notification of a dividend action establish a liability on the part of the company to its stockholders. Between the date declared and the date paid, the dividend, if not payable in stock of the company, is a current liability.

If a company has both preferred and common stocks, a dividend may be declared on the preferred even though not declared on the common.

Classification of Dividends

Dividends to stockholders may be classified as distributions of earnings and distributions of capital.

1. *Distributions of Earnings.*
   a. By Distributing Assets to Stockholders. To distribute profits as a dividend, free surplus must be available at least in the amount of the dividend. Most dividends are paid in cash but they may be paid in other assets of the company, such as government securities owned, stocks and bonds of other corporations, or merchandise. A dividend paid in cash or other assets decreases the net worth of the corporation.
   b. By Creating a Liability to Stockholders. If surplus is sufficient but cash is inadequate to pay a dividend, cash may be borrowed for the purpose. On the other hand, in such a situation the dividend may be made payable in bonds, promissory notes, or scrip of the corporation. Dividend scrip is a certificate of a company issued to a stockholder promising to pay the amount of a dividend at a later date. Any dividend which increases the liabilities of a company decreases its net worth.
   c. By Distributing Stock to Stockholders. In order to conserve cash, the board of directors of a corporation may declare a dividend out of surplus payable in the stock of the company. Such a dividend neither decreases assets nor increases liabilities, hence it does not decrease the net worth of the company. It reduces surplus by

the same amount it increases capital stock. To declare a stock dividend a sufficient amount of treasury stock, unissued stock, or both must be available.

2. *Distributions of Capital.*
   a. By Liquidating Dividends. If a corporation goes out of business, its assets are converted into cash, creditors are paid off, and cash when available is distributed proportionately to stockholders. Such capital distributing dividends are known as liquidating dividends.
   b. By Distributing Capital with Profits. The dividends to distribute earnings of some companies sometimes include a distribution of capital. It may be legal in some states, particularly for companies with wasting assets, such as oil, mining, and timber companies, to declare and pay dividends which represent, in part at least, a return of investment. When so used the announcement which accompanies the dividend to the stockholder should indicate clearly the extent of the capital return.

Any dividend which impairs the amount of capital originally contributed by the stockholders is a return of capital to the extent of the impairment.

Recording Dividends out of Earnings

Assume the following proprietorship section of a balance sheet:

PROPRIETORSHIP

Capital Stock Authorized (par $100.00)	$150,000.00	
Less: Unissued	50,000.00	
Outstanding		$100,000.00
Surplus—free		80,000.00
Net Worth		$180,000.00

Assume also that the directors of the company represented by the above section of a balance sheet declared a dividend of 10 per cent on the outstanding capital stock.

1. *Entries When a Dividend Is Declared.* If the dividend is payable in an asset or liability of the company, to record the declaration the entry is

Surplus	10,000.00	
Dividends Payable		10,000.00
To record the declaration on May 15, 19__ by the board of directors of a dividend of 10 per cent payable in cash on July 1, 19__ to stockholders of record on June 1, 19__.		

The Dividends Payable account is a current liability to be paid out of current assets or exchanged for another current liability. Since a dividend to be paid in the stock of the company does not represent a current liability a different account is credited for it when declared. If the dividend is a stock dividend, the entry without explanation is

Surplus	10,000.00	
Stock Dividend Payable		10,000.00

2. *Entries When a Dividend Is Paid.* On the date the liability on dividends payable is satisfied, the entry varies according to the kind of distribution made. The entry without explanation for the payment of the dividend recorded in the first entry in 1 above, is

Dividends Payable	10,000.00	
Cash		10,000.00

If any asset other than cash is distributed, the credit is to such other asset account. If the dividend is satisfied by the issuance of notes, scrip, or other liability of the company, the credit is to the appropriate liability account, such as Notes Payable or Dividend Scrip Payable. If scrip is used, when finally taken up by the company, Dividend Scrip Payable is debited and Cash is credited.

If the dividend is payable in the company's own stock, when the stock is issued, the entry without explanation is

Stock Dividend Payable	10,000.00	
Capital Stock		10,000.00

If treasury stock rather than previously unissued stock is used for the dividend, the credit is to Treasury Stock and not to Capital Stock.

The entries for dividends on no par stock, for which assets are distributed or liabilities are created to stockholders, are the same as those illustrated for par value stock. The amount to

record for no par stock dividends varies because of the different values at which no par stock is recorded in the Capital Stock account when issued originally. A conservative plan to record a stock dividend which is declared out of accumulated earnings is to charge Surplus and credit Stock Dividend Payable with the amount obtained by multiplying the number of shares to be issued as the dividend by the average paid-in value of the old outstanding shares. There are other plans for valuing no par stock dividends, among them one which values the dividend at the stated value of the shares distributed. A company issuing a no par stock dividend should indicate clearly the amount charged to Surplus because of the dividend. An inadequate charge makes possible the repeated use of the same surplus for no par stock dividend purposes.

No par treasury stock distributed as a dividend is charged to Surplus at the price at which it is carried in the accounts.

Recording Dividends out of Capital

Since this subject, recording dividends out of capital, includes complete liquidating dividends and involves the larger subject of realization on the assets and the liquidation of the liabilities and stock of a corporation, with perhaps a special realization and liquidation loss, it is left to more advanced texts.

Dividends on the Balance Sheet

If a dividend is payable in current assets or is to be satisfied by the issuance of liability paper, as previously stated, it is shown on the balance sheet of the declaring company, from the date declared until the date paid, in the current liability section. If a dividend is payable in stock, it is shown in the proprietorship section of the balance sheet, between the date declared and the date satisfied, as it is a credit in suspense to the Capital Stock account.

Cumulative Dividends in Arrears

If a dividend on cumulative preferred stock is not declared, there is no liability for it on the part of the company. The undeclared dividend simply accumulates as a preferential claim against profits, to be paid before common stockholders receive a dividend. On the balance sheet the extent of cumulative dividends in arrears is indicated usually by a footnote. Informa-

tion about cumulative preferred dividends in arrears is important to both the preferred and common stockholders.

SHARE OF STOCK VALUES

A number of different kinds of value are attributed to a share of stock. *Par* value and *no par* value were explained on page 349 and *stated* value on page 377. Other values commonly referred to are *market, liquidating,* and *book.*

Market Value

The market value of a share of stock is the current price commanded by a share in the market place. Market value is seldom the same as the par, stated, liquidating, or even the book value of stock. Market price is influenced by many factors including the general state of business prosperity; the condition and outlook for the industry of which the company is a part, as well as for the company itself; the personnel of the company; the record of the company with respect to earnings and dividends; and the book value of the stock.

Liquidating Value

Liquidating value is the amount to which a share is entitled and the amount realized by a share, if a corporation sells its assets, pays its liabilities and retires its stock. A share of preferred stock may be entitled to a certain figure, say, $100.00 in liquidation before common stockholders receive anything. The preferred share is said to have a liquidating value of $100.00. A share of common stock with a par value of, say, $50.00 may receive $2.17 in liquidation, which latter amount is its liquidating value.

Book Value

The book value of a share of stock is its worth as evidenced by the figures shown on the books of the company. The book value of a share is determined by dividing the net worth of the corporation by the number of outstanding shares. If there is more than one class of stock, the book value of a share in a particular class is determined by dividing the portion of the net worth applicable to the class of stock of which the share is a part by the number of outstanding shares in the class. The

net worth of a corporation is represented by the total of the proprietorship section of its balance sheet, which amount is also the excess of its assets over its liabilities.

THE EFFECT OF DIVIDENDS ON THE BOOK VALUE OF STOCK

Dividends paid in assets or liabilities of a company decrease its net worth and the book value of each of its shares. Since stock dividends represent transfers from Surplus to Capital Stock, both of which are proprietorship accounts, they do not decrease net worth. Stock dividends do increase, however, the number of outstanding shares and consequently reduce the book value of each share.

The figures used to illustrate the recording of dividends out of earnings are used again in the following illustration, to demonstrate the effect of dividends on the book value of a share of stock.

Items	Before	After		
	Dividend Declaration	10 Per Cent Asset Dividend	10 Per Cent Liability Dividend	10 Per Cent Stock Dividend
Capital Stock........	$100,000.00	$100,000.00	$100,000.00	$110,000.00
Surplus.............	80,000.00	70,000.00	70,000.00	70,000.00
Net Worth..........	$180,000.00	$170,000.00	$170,000.00	$180,000.00
Number of Shares Outstanding.......	1,000	1,000	1,000	1,100
Book Value of Each Share.............	$180.00	$170.00	$170.00	$163.63

QUESTIONS

1. *a.* In a corporation to which account should the balance of Profit and Loss be closed?
   b. May Profit and Loss ever be closed to the Capital Stock account? How is this possible? Is it desirable? Is it undesirable? Why?
2. *a.* What is surplus?
   b. Does surplus represent cash or any other specific asset?
   c. What is undivided profit? What kind of companies frequently use this title?
3. *a.* Distinguish earned from capital surplus.
   b. Why should earned and capital surplus be distinguished in the accounts and statements?

c. Name several sources of capital surplus.
d. What is meant by appropriated surplus?
e. Name several appropriated surplus account titles.
f. What is the real purpose of appropriating surplus?

4. Suppose it is discovered that the inventory of merchandise at the end of the previous fiscal period was overvalued $5,000.00 because of a clerical error.
a. Give the entry to correct this error.
b. If Surplus is either debited or credited in your answer to *a*, give the reason for such debit or credit.

***5.** Can you give any profit or loss items which are closed at the end of a period to Surplus rather than Profit and Loss? Cite the reason in each case.

6. Do the following items constitute earned or capital surplus? Why?
a. Premium on capital stock.
b. Credit balance of Profit and Loss at the end of a period.
c. Errors of past periods which increase net worth.
d. Assessments on full-paid stock.
e. Bad debt recovered.
f. Profit from the sale of land which was used for storage space for the last fifteen years but was needed no longer.

7. *a.* In order to ascertain the true change in the net worth of an enterprise between periods and the causes thereof, may it be necessary to study both the statement of profit and loss and the statement of surplus? Explain.
b. What is a statement of surplus?

8. *a.* May a *deficit* be shown in any account other than deficit? Which account?
b. What is the net worth of a company which shows on its balance sheet: Common Stock, $50,000.00; Preferred Stock, $50,000.00; Deficit, $20,000.00?

9. *a.* Is it possible for a company to distribute in a year more profits than were earned that year? Explain.
b. When does a stockholder know if he is to receive a dividend?
c. If a company is earning a substantial profit must dividends be paid? Explain.

10. Suppose a corporation has assets, $25,000.00; liabilities, $14,000.00; common stock, $10,000.00; and surplus, $1,000.00. Would the creditors of the corporation have any right to object, if a dividend of $5,000 was paid to the stockholders in cash? Why? If paid in stock of the company? Why?

11. *a.* Assume a corporation has common stock $50,000.00 and earned surplus $30,000.00.

(1) Give the entry if a dividend of 10 per cent is declared payable one month later in cash.
(2) Give the entry when the dividend is paid.
(3) Why make the entry for *a* above? Why not wait and record the dividend only when it is paid?

b. Suppose the 10 per cent dividend is a stock dividend.
(1) Give the entry when declared.
(2) Give the entry when paid.
(3) How much richer would a stockholder be after the payment of the 10 per cent stock dividend? Explain.

12. Why is a dividend payable in cash shown as a current liability on a balance sheet while one payable in the stock of the company is shown in the proprietorship section?

13. Are cumulative dividends on preferred stock in arrears a liability, if not declared? How is information about such dividends shown on the balance sheet?

14. *a.* What do you mean by the *par* value of a share?
b. What do you mean by the *liquidating* value of a share?
c. What do you mean by the *market* value of a share?
d. What do you mean by the *book* value of a share?
e. After a company has been operating for some time are
(1) Par value and book value likely to be the same? Explain.
(2) Book value and market value likely to be the same? Explain.

15. Is the net worth of a company reduced by the declaration of a dividend to be paid
a. In cash?
b. In the *scrip* of the company?
c. In the stock of the company?

16. Do you believe a corporation might ever be justified in borrowing cash to pay a dividend?

17. Assume a corporation has the following accounts, among others: Common Stock, $50,000.00; Surplus, $40,000.00; Undivided Profits, $10,000.00. Assume also that there are 1,000 shares of stock, all outstanding.
a. What is the par value of a share?
b. What is the book value of a share?

18. *a.* The Surplus account at the beginning of the year showed a debit balance of $10,000.00. This year a net profit of $8,000.00 was made. May a dividend be declared? If so, to what extent?
b. During the current year a corporation ran at a loss. However, the Surplus account still shows a substantial credit balance. Is it possible to declare a dividend?

19. The following three facts were taken from a corporate balance sheet:

Cash	$ 50,000.00
Accounts Receivable	80,000.00
Capital Stock (Outstanding)	200,000.00

Would you advise the declaration of a dividend? If so, to what extent? State your reasons briefly.

20. The net worth of a corporation today is $150,000.00. One year ago it was $155,000.00.

a. Is it possible that this corporation earned a net profit for the period? Explain.

b. Assume that $20,000.00 of capital stock was sold at par during the year and that cash dividends of $18,000.00 were paid. Determine the net loss for the year, it being assumed that there were no other changes in the corporate surplus.

21. *a.* What would cause a difference between the balance of the Surplus account in the ledger and the total surplus in the balance sheet?

b. Would the total surplus in the balance sheet agree with the amount of surplus in the proprietorship equation?

CHAPTER XXVI

RESERVES AND FUNDS

In Chapter XI, in connection with the topic "Adjusting the Books," reference was made to reserve accounts. In Chapter XV, when the subjects bad debts, depreciation, obsolescence, and depletion were considered, reference was made again to reserve accounts.

The reserve accounts referred to in Chapters XI and XV are valuation accounts. In Chapter XXV, which dealt with corporations, it was necessary to refer to another kind of reserve account—an appropriated surplus account. It is desirable, therefore, that special consideration be given to the subject of reserves, in order to distinguish properly between the two classes mentioned previously and to consider any additional classes. At the same time it is desirable to consider the subject of funds. The words reserve and fund are frequently but incorrectly used one for the other. A very brief mention was made in Chapter XV of the word fund.

RESERVES

The accounting use of the word reserve as part of an account title is mostly in a literal sense, to convey the idea of retaining, withholding, setting aside, or setting apart especially for a particular purpose. In the vocabulary of the accountant, the word reserve is an overly popular one, consequently its use as part of an account title is not defined easily.

Definition of a Reserve Account

1. When used as a valuation account. A reserve account is an account created with a credit balance to show the actual or estimated decline in the value of an asset from a cause such as depreciation, depletion, bad debts, fluctuation downward in the value of merchandise owned, or the expiration in part of a time-limited right or privilege.

2. When used as a proprietorship or appropriated surplus account. A reserve account is an account created with a credit balance to show the amount of net worth (usually surplus) which is appropriated—earmarked for a particular purpose.

3. When used as an estimated accrued liability account. A reserve account is an account created with a credit balance to show the amount of an estimated accrued liability.

Classification of Reserve Accounts

The definition of a reserve account indicated that all reserve accounts may be classified into three groups. These groups with illustrative subdivisions are

1. *Valuation Reserves.*
   - *a.* Reserve for Depreciation.
   - *b.* Reserve for Depletion.
   - *c.* Reserve for Bad Debts.
   - *d.* Reserve for Sales Discounts and Allowances.
   - *e.* Reserve for Decline in Inventory Value.
   - *f.* Reserve for Amortization of Patents.
2. *Proprietorship or Surplus Reserves.*
   - *a.* Reserve for Working Capital.
   - *b.* Reserve for Plant Extension.
   - *c.* Reserve for Possible Inventory Shrinkage.
   - *d.* Reserve for Obsolescence.
   - *e.* Reserve for Contingencies.
   - *f.* Reserve for Sinking Fund.
3. *Liability Reserves.*
   - *a.* Reserve for Income Taxes.
   - *b.* Reserve for Compensation Insurance.

Valuation Reserves

As pointed out in the definition, a valuation reserve account is used to show the actual or estimated decline in the value of an asset usually from operating causes. A valuation reserve receives its original and regular subsequent credit postings from entries the debits of which are made to operating expense accounts. The reason for the use of a valuation reserve account was given on page 189. Valuation reserve accounts are sometimes called allowance accounts. This variation from the usual

practice is commendable in the interest of clarity in the use of accounting expressions. When the word allowance is used instead of the word reserve the specific account titles become, for example, Allowance for Depreciation of Machinery rather than Reserve for Depreciation of Machinery, and Allowance for Bad Debts rather than Reserve for Bad Debts.

On page 131, where a valuation reserve account was first mentioned, it was stated that such an account is not an income, a liability, or a proprietorship account although it has a credit balance. A valuation reserve account is considered a part of its related asset account. Each credit to a valuation reserve account is made in lieu of a credit to the related asset account. On a balance sheet, therefore, a valuation reserve should be shown as a deduction from its related asset and not as an item in the liability or proprietorship section.

In Chapter XV the valuation reserve accounts for depreciation, depletion, and bad debts were considered, so they will not be considered further. Attention will be given, however, to the other valuation reserve accounts mentioned on page 402 in this chapter.

Reserve for Sales Discounts and Allowances. To be entirely consistent the asset accounts receivable should be revalued at the end of a fiscal period not only for the anticipated loss through bad debts but for anticipated sales discounts and allowances. Charge sales for which the discount period has not expired at the end of the fiscal period are still subject to the discount privilege. The asset accounts receivable should be reduced in value by the creation of a special Reserve for Discounts account for the anticipated amount of such discounts. Similarly, accounts receivable should be reduced by the creation of a Reserve for Allowances account in the anticipated amount of such allowances. These two special reserve accounts may be combined into one account, Reserve for Discounts and Allowances. The offsetting debits in the entry which creates this reserve account are to the accounts Sales Discounts and Sales Returns and Allowances for their respective amounts.

In determining the amount to be credited to Reserve for Discounts and Allowances at the end of a fiscal period, consideration is given to the past experience of the enterprise in this connection and to the current condition of business in the trade

and in general. If this special reserve account is used, then discounts taken and allowances granted in the new period on goods sold in the previous period are charged to this Reserve for Discounts and Allowances account.

Ordinarily, anticipated discounts and allowances are not comparable in importance to anticipated bad debts so most enterprises ignore making an allowance for them even though they may provide a Reserve for Bad Debts account. When the Reserve for Discounts and Allowances account is used, it is shown on the balance sheet as a deduction from accounts receivable.

Reserve for Decline in Inventory Value. In Chapter XIV it was noted that conservative practice approves the valuation of an inventory at cost, or cost or market whichever is the lower figure. If an enterprise wants to show its inventory on the books and in the statement of profit and loss at the cost figure but to use the cost or market value if lower, for balance sheet and income-tax purposes, it may do so by making an adjusting entry

Inventory Adjustment	xxx	
Reserve for Decline in Inventory Value		xxx
To record the decline in the value of inventory on a cost or market-value basis from the amount shown on the books at a cost value basis.		

On the balance sheet the inventory is shown among the assets at the net of its cost over the amount of the Reserve for Decline in Inventory Value account. The actual subtraction may be shown on the balance sheet, but there is no special reason for so doing if the method of valuation is indicated by a footnote on the balance sheet. The account Inventory Adjustment is closed to Profit and Loss for the current period and not to Cost of Goods Sold. If the cost value of inventory at the end of the new period is lower than the cost or market value, the Reserve for Decline in Inventory Value account is closed as a credit to Inventory Adjustment. If the cost or market value of the inventory at the end of the new period is lower than the cost value, then the Reserve for Decline in Inventory Value account is modified in amount to agree with such difference in value and Inventory Adjustment is debited or credited accordingly. After the first year, Inventory Adjustment account may have a credit balance;

whether a debit or credit balance it is closed to Profit and Loss. (See page 164.)

The Reserve for Decline in Inventory Value is a valuation reserve account and must not be confused with a Reserve for Possible Inventory Shrinkage, which is a proprietorship or surplus reserve. The Reserve for Decline in Inventory Value account provides for an actual decline in the value of inventory; the Reserve for Possible Inventory Shrinkage provides for a possible decline in the future. The Reserve for Possible Inventory Shrinkage account is considered later in this chapter.

Reserve for Amortization of Patents. Some intangible assets such as patents, copyrights, licenses, and leaseholds decline in value because of the passage of time. Their efficient lives are limited by law or contract. The cost value of such assets should be revalued downward periodically. In the case of an inventor of a patent, the patent should be written off within 17 years; the purchaser of a patent would write off its cost within the number of remaining periods. Such revaluation is accomplished by an adjusting entry which debits an expense account and credits either the asset directly or a reserve for amortization account. An illustrative entry for the periodic revaluation of an intangible asset which declines in value because of the mere passage of time is

Amortization of Patents	xxx	
Patents		
or		
Reserve for Amortization of Patents		xxx
To reduce the value of patents for the current period's share of their original cost.		

Proprietorship or Surplus Reserve Accounts

A proprietorship or surplus reserve account is not a valuation account nor is it a liability. It is a part of proprietorship, in the case of a corporation, a part of earned surplus which is appropriated—earmarked for a particular purpose. The full title of a corporate surplus reserve account includes both the words surplus and reserve, as Surplus Reserve for Working Capital or Surplus Reserve for Plant Extension. These titles are commonly shortened by the omission of the word surplus, thus Reserve for Working Capital or Reserve for Plant Extension.

Proprietorship or surplus reserve accounts are primarily a feature of corporation accounting. This is true to such an extent that this class of reserve accounts is more frequently referred to as surplus reserve accounts than as proprietorship reserve accounts. They will be referred to hereafter in this book as surplus reserve accounts.

As pointed out in the definition, a surplus reserve account is an account created with a credit balance usually by a transfer from the owners' accounts in the case of sole proprietorships or partnerships, or from the Earned Surplus account in the case of corporations. The amount shown in a surplus reserve account is still a part of proprietorship. The use of a surplus reserve account indicates the intention of the enterprise to hold an equivalent amount of assets for the particular purpose evidenced by the title of the account. The equivalent amount of assets is not necessarily segregated as will be explained shortly. Since it reflects a part of the net worth of the enterprise, a surplus reserve account appears on the balance sheet in the proprietorship section.

Classification of Surplus Reserve Accounts

When a board of directors authorizes the appropriation of surplus, it expresses its intention with respect to the use of an amount of earnings earmarked in a surplus reserve account. On the basis of the objectives for which they are created, surplus reserve accounts may be classified into five classes.

1. Surplus reserved for reinvestment.
2. Surplus reserved to cover future losses.
3. Surplus reserved because of contractual obligations.
4. Surplus reserved for certain other financial objectives.
5. Surplus reserved for repairs and maintenance.

A consideration of each of the above classes of surplus reserve accounts together with some illustrative account captions in each class follows.

1. *Surplus Reserved for Reinvestment.* The board of directors of a corporation may decide that additional working capital is desirable and that it should be provided by retaining some of the profits. *Working capital* is the excess of the amount of the current assets over the amount of the current liabilities of an enterprise. Such excess is the amount of the capital of an enterprise which is not invested in fixed assets, is not necessary

to meet current liabilities, and is available, therefore, for use in the current operation of the business.

The resolution of a board of directors authorizing the appropriation of surplus for additional working capital is the basis for the following entry:

Surplus	xxx	
Reserve for Working Capital		xxx
To transfer the amount authorized by resolution of the board from Surplus to this special reserve.		

The appropriation of a part of surplus to the account Reserve for Working Capital is notice to all interested parties that it is not the intention of the board of directors to distribute as a dividend that portion of surplus which has been reserved; it is notice that the board does not consider the amount reserved available for dividends. The board of directors may at any time authorize the transfer of the balance of the Reserve for Working Capital account back to Surplus.

Another account which indicates surplus reserved for reinvestment is the account Reserve for Plant Extension. The use of this account indicates the intention of the board of directors to accumulate profits for the purpose of enlarging the plant. The entry to create this account is

Surplus	xxx	
Reserve for Plant Extension		xxx
To transfer the amount authorized by the board from Surplus to this special reserve.		

If the policy of the company with respect to expansion is continued the Reserve for Plant Extension account will receive additional periodic credits. When the actual expansion takes place, the additional facilities acquired are charged to an asset account and an asset or a liability account is credited.

Assume a new building was purchased and paid for in cash

Buildings	xxx	
Cash		xxx

The Reserve for Plant Extension account may now be closed back into Surplus. It must be realized, however, that the assets which were accumulated in the business as an offset to the Reserve for Plant Extension account have been used in the

acquisition of the building and the company is in no better position, in fact it is in a poorer position, to pay cash dividends than before the building was purchased. If the company has sufficient unissued or treasury stock, it may declare a stock dividend to the amount of the Reserve for Plant Extension account.

2. *Surplus Reserved to Cover Future Losses.* Surplus reserved under this heading is not for actual losses but for losses which may materialize. An example is Reserve for Possible Inventory Shrinkage. In a period of falling prices, the board of directors of a company may anticipate a material reduction in the replacement value of the asset inventory as it appears on the balance sheet at the end of a fiscal period. The appropriation of surplus to a Reserve for Possible Inventory Shrinkage account expresses this anticipation and the provision made for it.

Other examples of reserves under this heading are

a. Reserve for Obsolescence. This account is set up to cover possible future losses from sudden obsolescence. (See page 194.)
b. Reserve for Contingencies. This account is created as a blanket reserve to cover possible future losses without specifically captioning them.

3. *Surplus Reserved because of Contractual Obligations.* For example, an enterprise is required sometimes to provide a reserve as the result of a contract made with bondholders or mortgagees. The contract for a long-term loan to an enterprise may have the stipulation included that the enterprise is required periodically to reserve out of profits amounts which, over the life of the loan, will equal its total value. Since the loan will not mature for a number of years the bondholders will have the additional protection of the reserve. The creation of the reserve out of earnings implies that the net worth of the company at the time of the loan will not only be maintained but will increase by the amount of the reserve. The creation of the reserve prevents the distribution in the form of dividends of the profits reserved.

Assume a 20-year 6 per cent bonded indebtedness in the amount of $50,000.00 with the requirement of an annual reserva-

tion from earnings of a pro rata share of the total indebtedness.

The entry to start such a reserve is as follows:

Surplus	2,500.00	
Reserve for Sinking Fund		2,500.00
To set aside out of profits one-twentieth of the amount of the total bonded debt.		

A similar entry is made at the end of each succeeding fiscal period until a total of 20 such entries have been made.

The calculation of the amount for the above entry was made on the straight-line basis, one-twentieth of the total debt to be provided for. It may be determined on other bases.

The establishment of a sinking fund reserve provides the protection necessary to conserve the net worth of an enterprise which is operating on a profitable basis but it does not guarantee that at the expiration of the debt the company will be in a position to liquidate it. Profits may be reserved periodically for many years but as so far considered in this book there is no requirement as to the form in which they must be kept. In the illustration just considered the assets representing the profits shown in the reserve account may be in the form of land, buildings, machinery, or other nonliquid assets, or they may have been used to pay off current debt. The additional protection required by bondholders with respect to the segregation of assets will be explained later in this chapter under the heading *Funds*.

When a Reserve for Sinking Fund account is used, its balance is transferred back to Surplus when the liability to the bond or mortgage holders has been satisfied.

4. *Surplus Reserved for Certain Other Financial Objectives.* A board of directors in a period of prosperity may appropriate surplus for the purpose of continuing dividends in less prosperous periods. Such an appropriation of Surplus is indicated by the account title Reserve for Dividends. An enterprise may have a policy with respect to the retirement of preferred stock and surplus may be appropriated periodically for that purpose. The appropriate account title in this instance is Reserve for the Retirement of Preferred Stock. These two accounts illustrate the kind of reserve accounts found under this heading.

5. *Surplus Reserved for Repairs and Maintenance.* This account is created to reduce earned and free surplus to the extent of the estimated cost of repairs to be made in the future. Frequently the offsetting debit is to the Repairs and Maintenance Expense account so that each fiscal period will be charged with its proportionate share of maintaining the equipment. In many enterprises repairs are made to equipment when business is dull. For example, in the fall and winter, repairs are made to equipment used primarily during the spring and summer months. During the war railroad equipment needed repairs but it could not be removed from active service without curtailing the transfer of men and materiel. The Interstate Commerce Commission permitted the railroads to prorate the estimated cost of these repairs although no cash was paid or liability incurred. In some industries major repairs are necessary at irregular intervals. For example, the relining of furnaces may be done on the average of every two or three years. To apportion the cost over each year receiving the benefit, a debit may be made to Repairs and Maintenance Expense and a credit to the Reserve for Maintenance. When the repairs are made the debit is made to Reserve for Maintenance.

Liability Reserves

As pointed out in the definition of a reserve account, a liability reserve account is an account created with a credit balance to show the amount of an estimated accrued liability. For example, at the end of a fiscal period an enterprise may not be able to determine accurately the amount of its income tax. That a tax will have to be paid on its profits of the current year is certain but the definite amount may not be known until some time in the next period. In such a situation the following entry is made:

Surplus	xxx	
Reserve for Income Taxes		xxx
To record the estimated income taxes for the year 19__.		

Income taxes are not a charge against operations; they represent a sharing of profits with the government, hence the charge in the above entry to Surplus and not to an operating expense account.

Taxes the amount of which is definitely known but is unpaid should not be shown in a Reserve for Taxes account. Such an item is entered on the books by an adjusting entry such as the following one:

Property Taxes	xxx	
Property Taxes Accrued		xxx
To record the unpaid property taxes for the period.		

Another reserve account which is classified as a liability reserve is Reserve for Pensions if it results from a contractual agreement with employees or is morally so considered by the company. Reserve for Compensation Insurance is another illustration of a liability reserve account. The total amount of premiums due for a fiscal period on compensation insurance is not known until after the close of the period, hence the use of the reserve account rather than an insurance accrued account. The debit in this instance is to the Compensation Insurance account.

The Word Reserve Used Incorrectly

As pointed out previously in this chapter, the word reserve is a very popular one in the field of accounting and frequently is misused. It has been stated that it is sometimes incorrectly used for the word fund. Similarly the word reserve as part of an account title is misused. For example, if an enterprise revalues an asset upward and makes an entry which debits the asset and credits Reserve for Unrealized Appreciation, it is using a reserve account title incorrectly. The credit in this instance belongs in an account titled Surplus Arising from Revaluation, or some similar title.

A Secret or Hidden Reserve

The expression *a secret reserve* or *a hidden reserve* is a very common one in accounting but peculiarly it does not refer to a particular reserve account on the books. It refers to a condition on the books of an enterprise whereby its net worth is understated.

A secret or hidden reserve is the amount of the understatement of the net worth of an enterprise. A secret reserve results from undervaluing an asset or overvaluing a liability, thus:

Undervaluing an asset by

1. Charging a capital expenditure to a revenue account, *i.e.*, an addition charged to repairs.
2. Writing off an asset against Surplus, *i.e.*,
   a. Reducing prematurely Patents, Copyrights, or other intangible asset accounts to a nominal value or to zero, or writing off Goodwill.
   b. Placing a tangible asset such as buildings, land, or furniture and fixtures on the books at a nominal figure or by reducing the value of such an asset to a nominal figure as soon as Surplus is large enough to permit.
3. Overstating a valuation reserve account, *i.e.*, excessive depreciation, depletion, or bad-debt allowances.
4. Charging a capital expenditure to an appropriated surplus account, *i.e.*, debiting the cost of a new building to Reserve for Plant Extension. (See page 407 in this chapter.)

Overvaluing a liability by

1. Creating an excessive liability reserve account, *i.e.*, overstating the Reserve for Income Tax account.

The purposeful creation of a secret reserve is not recommended in spite of the fact that the tendency to create such a reserve may be a characteristic of the conservative person. Anyone enjoys finding $2.00 in his pocket when he thought there was only $1.00. Similarly the owners and boards of directors of enterprises enjoy the consciousness that their enterprises are likely to be worth more than the figures exhibited on the books and statements. The amount of the secret reserve is considered a margin of safety in case an unforeseen loss develops.

The creation of a hidden reserve causes incorrect statements of the enterprise to be issued and in the case of corporations such statements deny the stockholders a knowledge of the correct condition of their enterprise. The creation of the secret reserve may have an influence on dividends and on the market price of the stock of the company and may facilitate manipulation of the stock by those who are aware of the facts. The purpose of accounting is to show true condition; ultraconservative action is discouraged as much as excessively liberal action.

FUNDS

Definition

A fund is an asset, usually cash or securities or both, set apart for a specific purpose.

Definition of a Fund Account

A fund account is an asset account; it represents cash, securities, or other assets set aside for a specific purpose. (See page 191.)

Purposes for Which Funds Are Created

Many individuals outside the field of accounting use the word funds and actually create them. A salaried person may open an account in a savings bank and weekly deposit cash therein to build up a vacation fund. Christmas funds, representing money accumulated weekly in banks to meet the expenses of the Christmas season, have been very common. Parents may accumulate money in a fund for the education of their children or to purchase a home. Individuals sometimes create funds by directly setting aside assets rather than accumulating them. Thus they may give during their lives or create by will funds for the use of religious, educational, or charitable institutions.

A business enterprise creates a fund in exactly the same way an individual does and for the same general purpose—to have a particular asset or assets with which to meet a future need. Some of the particular purposes for which funds are provided in a business enterprise are indicated in the following discussion.

Working Funds for Current Operations. Funds under this heading are those which are created to facilitate the current operations of the enterprise. Such funds consist of cash and represent, therefore, amounts withdrawn from the regular bank account of the enterprise and set apart for a particular purpose.

The Petty Cash or Imprest Fund explained on page 287 is the most common of the working funds. Branch Funds which represent cash sent to branches to facilitate their operation is another illustrative title. Working Funds are current assets and are so presented on the balance sheet usually as a part of the asset cash.

Funds for the Acquisition of Fixed Assets. On page 407 in this

chapter, the account Reserve for Plant Extension was considered. That discussion pointed out how an enterprise might appropriate surplus for the ultimate purpose of extending plant facilities. Such an appropriation of surplus does not in itself insure that the assets retained in the business for reinvestment purposes will be in a form to be utilized, when needed, for the purpose for which the reserve is created. They may be tied up in inventory, accounts or notes receivable, or in other assets, or they may have been used to liquidate debt.

If a company desires to utilize profits for expansion purposes, it may actually segregate the assets necessary for that purpose by creating a Plant Extension Fund. Assume a board of directors believes an expansion will be desirable in five years and estimates it should have $80,000.00 available for that purpose at the end of that time. It is decided to set aside $16,000.00 cash immediately and to invest that sum in marketable bonds. It is also decided that each year thereafter an additional amount will be set aside and invested, the amount to equal $16,000.00 less the net earnings of the fund for the preceding year. This procedure is to be continued until the fund reaches $80,000.00. Suppose it is also agreed that $16,000.00 shall be appropriated immediately from Surplus to Reserve for Plant Extension and that a similar amount shall be appropriated annually until the total is $80,000.00.

The entries necessary for these assumed facts are as follows:

1. *a.* On the date of the original purchase of bonds, December 31, 19—

Plant Extension Fund	16,000.00	
Cash		16,000.00
To record the purchase of $16,000.00, 6 per cent bonds at par for the plant extension fund. Interest payable June and December 30.		

b. On the date of the original appropriation of surplus, December 31, 19—

Surplus	16,000.00	
Reserve for Plant Extension		16,000.00
To record the appropriation by the board of directors of surplus for plant extension.		

2. On June 30 when the first interest is received

Plant Extension Fund	480.00	
Interest Earned on Plant Extension Fund		480.00
To record semiannual interest received on $16,000.00—6 per cent bonds held in the plant extension fund.		

The last entry above assumes that a separate bank account and separate books have been opened for the fund.

3. On December 30 one year after the fund was established

Plant Extension Fund	480.00	
Interest Earned on Plant Extension Fund		480.00
To record semiannual interest received on $16,000.00—6 per cent bonds held in the plant extension fund.		
Plant Extension Fund	15,040.00	
Cash		15,040.00
To record transfer to plant extension fund of $16,000.00 less the income earned by the fund during the year.		
Surplus	16,000.00	
Reserve for Plant Extension		16,000.00
To record the appropriation by the board of directors of surplus for plant extension.		

The above entries are continued as interest is received, surplus appropriated, and cash transferred to the fund, until both the fund and the reserve total $80,000.00.

4. When the securities in the fund are converted into cash and the fund is used for the acquisition of a new building

Building	80,000.00	
Plant Extension Fund		80,000.00
To record the acquisition of a building with the plant extension fund.		
Reserve for Plant Extension	80,000.00	
Surplus		80,000.00
To return to Surplus the amounts appropriated for plant extension.		

A fund, such as the one just illustrated, may be operated without its equivalent appropriated surplus reserve and, as was explained earlier in this chapter, an appropriated surplus reserve may be used without an equivalent fund.

Funds for the Redemption of Fixed Liabilities. In the discussion of Surplus Reserved for Contractual Obligations which began on page 408 in this chapter, it was observed that the creation of such a reserve account did not guarantee the existence of particular assets with which to meet the obligation at maturity. If the contract between a borrower and the bondholders on a long-term debt requires the accumulation of assets with which to meet the obligation at maturity or if the borrower merely desires to have such an accumulation of assets for this purpose, it is accomplished by the creation of a sinking fund. If the creation of the sinking fund is optional, it may remain in the control of the borrowing enterprise. The entries in such a case follow the same general plan as illustrated on page 414 for a plant extension fund.

If the fund is a requirement of the contract, it is usual for the sinking fund to be controlled by an impartial trustee. The trustee is responsible for the investment of the cash in the fund, for the collection of the interest or dividends on the securities in the fund, and the ultimate payment of the fund monies to the proper parties. Sometimes the fund may be used to purchase bonds of the particular issue for the payment of which the fund is provided. In such a case the purchased bonds may be retired or they may be held as securities in the fund and the interest on them paid to the trustee.

The entries to record the operation of a sinking fund in the hands of a trustee are substantially the same as those illustrated previously for a fund operated and controlled by the enterprise. From the income on the securities in the fund and any profit resulting from the purchase and sale of securities are subtracted the expenses and commission of the trustee as well as any losses resulting from the handling of securities. The trust agreement may provide that the net earnings may be accumulated in the fund or turned over to the enterprise. In either case, the net earnings of the fund should be shown on the books of the enterprise as income of the year in which earned.

In this chapter the periodic contributions to a fund have been

illustrated on the basis of a simple arithmetical calculation. Actually the periodic contributions may be determined on a number of different bases according to the provisions of the trust agreement. Sometimes the periodic contribution is not calculated on a time basis. In an extractive industry, for example, a coal mine, the periodic contribution may be determined on the basis of the tonnage mined in the period.

A sinking fund may be shown on a balance sheet in a special grouping between current and fixed assets. Obviously it is not a current asset and it is not a fixed asset in the sense that a fixed asset is a relatively long-lived asset necessary in the operation of the business. The classification of a sinking fund as a fixed asset may be justified on the grounds that it is a long-term investment held for the purpose of meeting a fixed liability at maturity. Another method of showing a sinking fund on the balance sheet is to present it as a deduction from the amount of the bond issue for the payment of which it was set up. This plan is excellent if the securities in the fund are bonds for the payment of which the fund exists. If the investments of the fund are in outside securities then they are assets held for a special purpose and should be shown among the assets of the enterprise. These very brief arguments tend to confirm the judgment that a sinking fund may best be shown in a special section of the balance sheet between current and fixed assets.

A sinking fund may be operated without its equivalent appropriated surplus reserve; on the other hand a reserve for sinking fund may be operated without its equivalent sinking fund.

Funds for Other Purposes. Funds for a number of purposes other than those illustrated in this chapter are common with business enterprises. Some of these fund account titles are Pension Fund, Preferred Stock Retirement Fund, Insurance Fund, Vessel Replacement Fund, Strike Fund, Accident Claims Fund, Restoration of Leased Property Fund, and Contingent Fire Loss Fund.

QUESTIONS

1. *a.* What is a valuation reserve account?
b. What is a surplus reserve account?
c. What is a liability reserve account?
d. Name several valuation reserve account titles.

e. Name several surplus reserve account titles.
f. Name one liability reserve account title.
g. The Reserve for Depreciation account is known by what other title?

2. What is the purpose of each of the following reserve accounts:
a. Reserve for Federal Income Taxes?
b. Reserve for Contingencies?
c. Reserve for Plant Extension?
d. Reserve for Bad Debts?
e. Reserve for Decline in Inventory Value?
f. Reserve for Possible Inventory Shrinkage?

3. What entries are necessary to create the reserves listed in question 2?

4. Which class of reserve accounts is shown on the balance sheet in
a. The proprietorship section?
b. The asset section?
c. The liability section?

5. *a.* What adjusting entry is made at the end of a period, if property taxes in the amount of $480.00 are accrued, are not recorded, and are not paid?
b. What entry is made at the end of a period, if the estimated federal income tax for the period is $500.00?
c. Are income taxes an operating expense? Explain.

6. *a.* Is it necessary to have a Reserve for Sinking Fund account, if a sinking fund is created? Why or why not?
b. Is it necessary to have a sinking fund, if a Reserve for Sinking Fund account is created? Why or why not?
c. If the corporate balance sheet shows both a Sinking Fund and a Reserve for Sinking Fund should the balances of both agree? Explain.
d. As the holder of a bond which is not to be paid for 20 years, would you prefer that the issuing company keep both a sinking fund and a Reserve for Sinking Fund account? Why?
e. As a stockholder would you oppose either or both?
f. Does the creation of a sinking fund reduce the possibility of profit distributions to stockholders? Explain.

7. If working capital is the excess of current assets over current liabilities, how does the creation of a Reserve for Working Capital accomplish its purpose?

8. Assume that a $200,000.00 building is purchased with money realized from the sale of a bond issue at par. Assume further that the company anticipates making an allowance for depreciation each year equal to 2½ per cent of the cost price of the building, and it intends to provide a sinking fund to retire the bonds when due.

What is the effect on the balance sheet and the statement of profit and loss of the provision for depreciation and the creation of the fund? If a fund is created why is a depreciation allowance necessary?

9. *a.* Do you believe a company could create a *secret reserve* by over-depreciating its physical assets?
   b. What do you mean by a secret reserve?
   c. Suggest other methods by which secret reserves are created.
   d. Is the creation of a secret reserve desirable? Explain.

10. What is a fund?

11. If your college class is accumulating a fund to give to your school on graduation, just what does the class have in the fund?

12. Why would a business enterprise create a fund?

13. Suppose your city issued $10,000,000.00 of 20-year bonds. Suppose also it has a Sinking Fund Committee consisting of the Mayor, the City Controller, and a banker.
   a. Would the city have to give the Sinking Fund Committee any money each year? If so, what would the committee do with it?
   b. Do you think it would be satisfactory if the Sinking Fund Committee bought some of the city bonds?
   c. What entry should be made on the books of the city, if cash was given to the committee?
   d. What entry should be made on the city books for interest collected by the committee?

14. Suppose a corporation has the following accounts among others: Cash, $100,000.00; Sinking Fund, $100,000.00; Bonds Payable, $100,000.00; Reserve for Sinking Fund, $100,000.00; Capital Stock, $100,000.00; Surplus, $100,000.00. It has 1,000 shares of stock outstanding.
   a. What is the par value of a share?
   b. What is the book value of a share?
   c. Give the entry or entries if the bonds are paid off.
   d. Give any other entries which should be made after the bonds are paid off.

CHAPTER XXVII

BONDS

Any discussion of corporation accounting is incomplete without a consideration of the subject, the accounting for bonds. Since such consideration was not included in the preceding chapters, this chapter is devoted to it.

As a topic, bonds belong in the fields of finance and law. The use of bonds, however, results in financial transactions which must be recorded and presented according to sound accounting principles. As in many other instances, it is not possible to record and present properly the financial facts pertaining to bonds without an adequate understanding not only of the facts in the particular instance but of the subject of bonds in general.

Definition

A bond, from the standpoint of accounting, may be considered a promise, under seal, to pay a definite sum of money, at a definite future date, to another person or bearer.

It will be noticed that a bond is much the same as a promissory note. It differs in one important respect; it is made *under seal.* Under seal means that the promisor has not only signed the bond but attached some mark to show that he has made the promise solemnly and intends it to be binding. In lieu of attaching or making a seal, the promisor may use a form with the seal indicated thereon.

Most bonds are not only promises to pay principal sums of money at definite future dates but are also promises to pay interest thereon, usually on a semiannual basis. A bond is usually a definite part of a particular issue, thus a corporation may borrow $100,000.00 by means of bonds, and the various bonds of the issue may be in amounts of $1,000.00, $500.00, $100.00, or $50.00. Bonds of $50.00 or smaller denomination are known as *baby* bonds.

The use of bonds differs from the use of notes in that the former are used for long-term financing, the latter usually for short-

term. Bonds may not mature for years; issues of 10-year, 20-year and even longer-term bonds are common. Corporations have made such extensive use of bonds in connection with their borrowings that an accounting consideration of bonds is usually limited to corporate bonds; the treatment in this chapter will be so limited.

Some Popular Classes of Bonds

It should be noticed that the heading indicates that only *some* popular classes of bonds are to be considered in this section. A complete classification of bonds is too extensive a study to be attempted in an elementary text on accounting. The accounting student should be familiar, however, with the meaning of the popularly known classes of bonds. One classification of bonds divides them into government and private bonds. Government bonds include the various issues of federal, state, county, municipal, and school district bonds. Private bonds include all bonds not issued by a governmental body.

Another classification of bonds is based on the security behind them. So-called *unsecured* bonds are those for which particular assets have not been pledged as security. *Secured* bonds are those for which particular assets have been pledged as security. The expression *secured bond* does not imply that at a particular time the pledged security is a complete or adequate protection for the bond issue.

Debenture Bonds. Debenture bonds are an illustration of unsecured bonds. The holders of debentures are *merely* long-term creditors of the corporation and have no prior claim over other creditors to any of the assets of the corporation.

First Mortgage Bonds. First mortgage bonds are an illustration of secured bonds. A bond so named indicates one of an issue secured by a first lien on certain specific real property of the issuing corporation. The lien may be exercised in the interest of the bondholders in the event of default in the payment of principal when due or interest during the term of the loan. There may be second, third, and other numbered mortgage bonds issued with certain specific real property as security. The numbers indicate the order in which the various issues rank with respect to claim on the pledged property.

Other popular classes of bonds are

Collateral Trust Bonds. An issue of collateral trust bonds is secured by stocks or bonds or both, which are owned by the debtor corporation but are deposited with a trustee for the bondholders as collateral security for the issue.

Sinking Fund Bonds. Sinking fund bonds require the debtor corporation to accumulate funds to meet the issue at maturity.

Serial Bonds. Serial bonds are those which require the payment of parts of the issue periodically.

Income Bonds. Income bonds are bonds the interest payments on which are conditioned on net earnings. Such bonds may or may not be secured.

Guaranteed Bonds. Guaranteed bonds are those the principal or interest on which or both are guaranteed by another company.

Refunding Bonds. Refunding bonds are those issued in exchange for or to redeem a previous issue.

Convertible Bonds. Convertible bonds may be exchanged for the stock of the issuing corporation.

Callable Bonds. Callable bonds may be called for redemption by the debtor corporation prior to maturity. The call price is usually in excess of the par value of the bonds.

Gold Bonds. Gold bonds are bonds which specify payment at maturity in gold, if demanded by the holders.

Coupon Bonds. Coupon bonds are bonds the interest payments on which are provided for by coupons attached to the bonds. Each interest payment to be due on a bond is represented by a coupon; each coupon is a promise of the debtor corporation to pay the particular amount of interest due on the date specified. The holder of a coupon bond clips the proper coupon at interest periods and deposits it as a cash item in his bank account. The coupons are payable usually at the bank of the issuing corporation. Coupon bonds are payable usually to bearer and are transferable upon delivery.

Registered Bonds. Registered bonds are those the ownership of which is registered with the debtor corporation or its transfer agent and are payable only to the registered owner at maturity. Transfer of ownership must be accompanied by transfer of registration. A bond may be registered as to principal or principal and interest. If principal alone is registered, the bond carries coupons for the payment of interest. If both principal and interest are registered, interest is paid by check.

Authority to Issue Corporate Bonds

The approval of the stockholders is usually necessary before a board of directors may provide for a corporate bond issue. If the company has both common and preferred stock, the common stockholders may have to authorize the issue and the preferred stockholders give their consent. Bonds are evidences of debt; they are liabilities of the corporation. Since bonds are used for long-term borrowings, the lenders frequently require the pledge of specific property or collateral, as security for the loan. Such pledging of specific assets of the corporation is a matter which requires stockholder action since it places another group—the bondholders—ahead of them with respect to the pledged assets, in case the company meets financial reverses.

Quotation of Bond Prices

Bond values are shown invariably on the books of a corporation at par value figures. *Par* is the face value of a bond. As previously stated, bonds are issued usually in amounts of \$1,000.00, \$500.00, and \$100.00; \$50.00 bonds and bonds of even smaller denomination are issued sometimes; \$1,000.00 is the usual par value of a corporate issue.

The market price of bonds is expressed on a \$100.00-value basis. A \$1,000.00 bond which is sold for \$1,140.00 is said to have sold at 114; a \$1,000.00 bond offered for sale at \$920.00 is quoted at 92. Fractional dollar values for bonds are quoted on the New York Stock Exchange in eighths, thus 110 7/8 means a price of \$1,108.75 for a \$1,000.00 bond. Fractional dollar values of the bonds of the United States are quoted on the New York Stock Exchange in thirty-seconds, thus 101-28 is 101 28-32 or \$101.875 or \$1,018.75 for a \$1,000.00 bond.

Bond Expenses

Typical expenses in connection with an issue of bonds are the fees paid to lawyers and accountants for professional services and the cost of the bond paper and engraving. Such expenses should be prorated over the life of the bonds because they are a cost of obtaining the use of the money for the period represented by the life of the issue. The problem of the amortization of these costs is simplified, if they are charged to Unamortized Bond

Discount and Expense, if the bonds are sold at a discount, or to Unamortized Bond Premium, if sold at a premium. It is not strictly logical to charge these expenses to the Unamortized Bond Premium account when the bonds are sold at a premium but it is done in the interest of simplicity.

Bonds Sold at a Discount

If bonds are sold at less than par value, the difference between par and selling price is charged to Unamortized Bond Discount or Unamortized Bond Discount and Expense account. The discount is really interest paid in advance to investors as an inducement to purchase the bonds. The principle of discount as additional interest is illustrated by the following example. Suppose a borrower needs approximately $500.00 for a period of six months. In order to procure the money he wants to use the note of a customer which he holds, in the amount of $500.00. The note bears interest at 6 per cent per annum and is due in six months. The borrower offers that note to the lender for the sum of $490.00. In view of the nature of the risk involved, the borrower offered a $10.00 discount inducement, in addition to the 6 per cent interest, by offering to sell the note at $490.00.

It is customary to carry Unamortized Bond Discount and Expense account on the books and to present it on the balance sheet as a deferred charge—a prepaid expense. Each period a portion of Unamortized Bond Discount and Expense is written off (amortized) as an additional interest expense of the bonds. At the maturity of the bonds, the account Unamortized Bond Discount and Expense should not have any balance.

The treatment of Unamortized Bond Discount and Expense account, with respect to the strictly discount item, is quite a contrast to the treatment recommended for the account, Discount on Capital Stock. Discount on Capital Stock is treated as an amount of capital not paid in to the corporation. Bond discount is treated as interest paid in advance.

If the entire issue of bonds matures at a fixed future date the Unamortized Bond Discount and Expense account may be amortized on a straight-line basis so that each period is charged with an equal amount.

If the bonds are to be redeemed serially the Unamortized Bond Discount and Expense account may be amortized on the

basis of the amount of bonds outstanding. Under this plan a fractional part of the discount and expense is taken periodically. The numerator of the fraction is the amount of bonds outstanding in a period, the denominator is the total of the bonds outstanding for all periods. Assume: On January 1 of the current year a $300,000.00 bond issue due in ten years was sold at a discount of 10 per cent, interest to be 5 per cent payable semiannually on January and July 1. One-tenth of the bonds are to be redeemed each January 1. Under the bonds outstanding method the amount of the discount to be amortized each interest period is determined as follows:

Year	Bonds Outstanding	Fractional Part of Total	Yearly Amount Amortized
1	$ 300,000.00	30/165	$ 5,454.55
2	270,000.00	27/165	4,909 09
3	240,000.00	24/165	4,363.63
4	210,000.00	21/165	3,818.18
5	180,000.00	18/165	3,272.72
6	150,000 00	15/165	2,727.27
7	120,000.00	12/165	2,181.82
8	90,000.00	9/165	1,636 36
9	60,000.00	6/165	1,090.91
10	30,000.00	3/165	515 47
	$1,650,000.00	165/165	$30,000 00

It will be noticed that the total discount to be amortized (10 per cent of $300,000.00) is $30,000.00, the total of the last column. The fractions in Column 3 are obtained by considering the number of bonds outstanding each period in relation to the total for all periods. The first fraction in Column 3 is a reduction from the fraction 300,000 over 1,650,000. The other fractions are derived similarly.

The amortization each interest period is one-half of the appropriate amount shown in the column headed Yearly Amount Amortized.

The amortization of the bond discount by either of the plans described above is not scientific, as neither allows for interest on interest. They are used in practice for the same reason that the straight-line method of depreciation is used, because of their simplicity.

If bonds are called prior to maturity the unamortized bond discount and expense applicable to the redeemed bonds should be charged to the Loss (or Profit)—Retirement of Bonds account, which may be closed directly to Surplus. Assume: A corporation issued on January 1 of a given year $200,000.00 ten-year 6 per cent bonds at a discount of 10 per cent. On January 1 six years later one-half of these bonds was redeemed at par. Between the date of issue and the date when one-half the bond issue was redeemed, $12,000.00 of the total of $20,000.00 of bond discount had been amortized. One-half of the $8,000.00 unamortized discount is applicable to the redeemed bonds, consequently $4,000.00 of the balance of the Unamortized Bond Discount and Expense account should be charged to Loss—Retirement of Bonds.

Bond Premium

When bonds are sold at a price in excess of par the difference is credited to Unamortized Bond Premium account. The sale of an issue of bonds at a premium indicates the interest rate carried by the issue is higher than necessary under the circumstances. The proper interest rate cannot always be determined in advance of the issue, hence the sale of the bonds at a premium or discount. As indicated previously the expenses connected with the issue are debited to the Unamortized Bond Premium account and the net figure is allocated over the life of the bonds in the same way as was indicated for Unamortized Bond Discount and Expense account.

In the balance sheet unamortized bond premium is treated usually as a deferred credit. Most deferred credit items are absorbed as income in subsequent periods but in the case of Unamortized Bond Premium account a portion of the account is credited each period to Interest on Bonds, thereby reducing a periodic cost account rather than increasing an income account.

Bond Interest

Bonds, unlike stocks, are liabilities of the issuing corporation. Interest on bonds accrues to the holders. When bonds are sold by one owner to another, it is customary to charge not only the

bid and accepted price but accrued interest as well. The amount of accrued interest at the time of a sale represents income to the seller, if he owned the bonds since the last interest period; it represents an asset to the buyer, an amount to be returned at the next interest period. A buyer debits the account Interest on Investments for the amount of accrued interest paid; he credits Interest on Investments for the amount of interest received. At the end of the next interest period, the credit to Interest on Investments, for the amount of the full six-months interest received, will exceed the debit; and the excess will be the interest earned on the bonds within that interest period. The first interest to be paid on an issue of bonds runs from the date of issue regardless of the dates when the bonds were sold. The original sale of bonds by the issuing corporation, if made at a date later than the date on the bonds, includes a charge for accrued interest.

Coupons often are not presented promptly. Until payment is made the corporate balance sheet should show the liability on such coupons in the Interest on Bonds Accrued account in the current liability section.

The Computation of Interest on a Bond between Interest Periods

When a bond is purchased or sold between interest periods, interest is calculated on the par value of the bond, at the rate of interest carried by the bond, for the time interval between the last interest period and the date of purchase or sale. The time element is expressed as so many months and so many days from the last interest date.

Assume: *A* purchased from *B* on August 13, at 97, a $1,000.00, 6 per cent bond, the interest on which was payable each April and October 1. In addition to a payment of $970.00 for the principal of the bond, it is necessary for *A* to pay *B* the interest on $1,000.00 at 6 per cent from the last interest date, April 1, to the date of purchase, August 13. From April 1 to August 1 is considered four months and from August 1 to August 13 elapsed time is taken, namely, twelve days. The interest on $1,000.00 at 6 per cent for four months and twelve days is $22.00—the amount *A* must pay *B* for accrued interest.

Entry Illustrations

Assume: A corporation authorized an issue of $300,000.00 First Mortgage Bonds due in ten years and to bear 5 per cent interest payable semiannually on January 1 and July 1.

1. Suppose on January 1, the date the bonds were authorized, the entire issue was sold at par. The entry is

Cash	300,000.00	
First Mortgage Bonds Payable		300,000.00
To record the sale at par of the entire issue of 10-year 5 per cent First Mortgage Bonds.		

2. Suppose two-thirds of the issue were sold on January 1 at par. The entry is

Cash	200,000.00	
First Mortgage Bonds Payable		200,000.00
To record the sale at par of $200,000.00 of the First Mortgage Bonds.		

3. Suppose the remaining $100,000.00 of bonds in 2 were sold at par on April 1 of the same year. The entry is

Cash	101,250.00	
First Mortgage Bonds Payable		100,000.00
Interest on Bonds		1,250.00
To record the sale at par and accrued interest for three months of $100,000.00 of the 10-year 5 per cent First Mortgage Bonds.		

In the above entry the credit to the account Interest on Bonds will offset in part the debit to the same account at the end of the interest period. Since a full six months' interest will be paid on the bonds on July 1, 19__, it was necessary to charge for the three months' interest which had accrued on them at the date of sale, April 1, 19__.

4. Suppose the entire issue was sold on January 1 to investment bankers at a discount of 10 per cent. The entry is

Cash	270,000.00	
Unamortized Bond Discount and Expense	30,000.00	
First Mortgage Bonds Payable		300,000.00
To record the sale to investment		

bankers of the entire issue of $300,000.00 of 10-year 5 per cent First Mortgage Bonds at a discount of 10 per cent.		

Assumption 4, the last one on page 428, illustrates a very common happening—the sale of an issue to or the underwriting of an issue by investment bankers. The bonds are not always sold at a discount. As previously explained the price depends on the rate of interest and the extent of the risk involved as well as on a number of other factors. The investment bankers make their profit by selling the bonds to their customers at a price higher than was paid for them or as commission for underwriting.

5. Suppose the entire issue was sold on January 1 to investment bankers at a premium of 10 per cent. The entry is

Cash	330,000.00	
First Mortgage Bonds Payable		300,000.00
Unamortized Bond Premium		30,000.00
To record the sale to investment bankers, of the entire issue of $300,000.00 of 10-year 5 per cent First Mortgage Bonds at a premium of 10 per cent.		

6. Suppose all bonds are outstanding, were issued at par, and interest is to be paid at the end of the first interest period. The entries, to record the accrual of the interest for the six months' period and its payment, may be made under one of two plans.

Plan A.

July 1, 19__		
Interest on Bonds	7,500.00	
Interest on Bonds Accrued		7,500.00
To record six months' interest due this day on the $300,000.00, 10-year 5 per cent First Mortgage Bonds.		

On the date the coupons paid by the bank are given to the corporation, the entry is

Interest on Bonds Accrued	7,500.00	
Cash		7,500.00
To record the payment by the bank of the interest coupons due July 1, 19__ on the $300,000.00, 10-year 5 per cent First Mortgage Bonds.		

If any bondholders are tardy in presenting their coupons or fail to present them, the liability of the corporation because of such coupons is shown as a credit balance in the Interest on Bonds Accrued account.

Plan B. The following entry may be made for the facts of this assumption:

July 1, 19—		
Interest on Bonds	7,500.00	
Cash		7,500.00
To record the total amount of interest coupons due this date on the $300,000.00, 10-year 5 per cent First Mortgage Bonds.		

If the above entry is made, a check for the full amount of the coupon interest is drawn on the regular checking account of the corporation and used to open a coupon checking account at the bank. As coupons reach the bank they are charged to the special deposit account for coupons. Any balance remaining in the coupon bank account at the end of a fiscal period is an asset equal to the liability on unpaid coupons.

Interest entries in the subsequent illustrations will follow plan *B*.

7. Suppose all bonds are outstanding, were issued at the discount illustrated in 4, that a semiannual interest payment is made and the Unamortized Bond Discount and Expense account is amortized on the straight-line basis. The entries are

Interest on Bonds	7,500.00	
Cash		7,500.00
To record the semiannual interest payment.		
Interest on Bonds	1,500.00	
Unamortized Bond Discount and Expense		1,500.00
To amortize one-twentieth of the Unamortized Bond Discount and Expense account.		

8. The entries at the time interest is paid according to the facts stated in 5 are

Interest on Bonds	7,500.00	
Cash		7,500.00
To record the semiannual interest payment.		
Unamortized Bond Premium	1,500.00	
Interest on Bonds		1,500.00
To amortize one-twentieth of the Unamortized Bond Premium account.		

9. Suppose the bonds are redeemed at the end of the ten-year period by payment in cash. The entry is

First Mortgage Bonds Payable	300,000.00	
Cash		300,000.00
To record the redemption in cash of the entire issue of $300,000.00, 10-year 5 per cent First Mortgage Bonds.		

If, prior to maturity, a corporation buys some of its outstanding bonds as treasury bonds at a discount or premium, the difference between par and the price paid is debited or credited to an account title which may become a surplus item.

Some Bond Retirement Problems

Many bond issues are retired during a fiscal period. Assume that bonds originally issued at a discount mature on May 1, 19A and that they are sinking fund bonds that required a reserve for sinking fund to be maintained. Assume that the corporate books are adjusted each December 31. On May 1, 19A entries are necessary to record the

a. Payment of the interest for the last six months.
b. Amortization of any remaining discount on the bonds.
c. Last contribution to the sinking fund.
d. Net earnings in the sinking fund since the last report.
e. Corporate check to cover any deficiency in the sinking fund.
f. Last transfer of earned and free surplus to the Reserve for Sinking Fund account to bring it into agreement with the

sinking fund but not in excess of the face of the outstanding bonds.

g. Retirement of the bonds out of sinking fund monies.

h. Return to the checking account of the corporation any excess remaining in the sinking fund.

i. Removal of the Reserve for Sinking Fund account from the books.

Bonds in the Balance Sheet

Authorized and unissued bonds are not an asset to a corporation; neither are they a liability. The amount of any authorized and unissued bonds is indicated on the balance sheet as a footnote or as a subtraction from the total amount authorized as in the illustration below.

Treasury bonds, a corporation's own bonds reacquired, are shown in the Treasury Bond account with a debit balance but they do not represent an asset. They are debts which have been paid; consequently, they could not be assets. If the treasury bonds are canceled, the Treasury Bond account is closed into the Bonds Payable account and the amount of that liability account is permanently reduced. If the treasury bonds are kept alive for the purpose of possible resale, the Treasury Bond account remains open on the books with a debit balance but it is shown in the balance sheet as a deduction from the amount of authorized bonds in order to show the true bond liability of the corporation.

The following illustration shows a method of treating bond facts in a balance sheet:

First Mortgage 6 per cent Bonds—Authorized..		$200,000.00	
Less:			
Unissued Bonds. .	$50,000.00		
Treasury Bonds.....	5,000.00	55,000.00	
Outstanding Bonds ..			$145,000.00

Another method of presenting the same facts is

First Mortgage 6 per cent Bonds—Issued......	$150,000.00	
Less:		
Treasury Bonds..............	5,000.00	
Outstanding Bonds........		$145,000.00

In this case a footnote on the balance sheet indicates that $50,000.00 of First Mortgage, 6 per cent Bonds are authorized but unissued.

Subscription to Bonds

Bonds may be sold on the subscription plan the same as stock. When sold in this way the entries are similar in style to those illustrated in Chapter XXIV for sales of stock on the subscription plan.

Auxiliary Records

A corporation with bonds outstanding requires supplementary records to keep the necessary information about the bonds and the interest paid on them. Bonds registered as to principal and interest must be listed in a register to show such items as the number of the bond, date issued, maturity date, par value, name and address of owner and name of transferee in case the bond is transferred. Space must be provided also for a record of the interest payments made. Bonds, registered as to principal only, require provision for all of these records except those for interest payments.

Record must also be kept of all coupons to show those paid and those due and unpaid.

Recording Bonds from the Investor's Standpoint

A corporation issuing bonds either above or below par should attempt to keep correctly its periodic interest expense on the bonds. It should amortize the amount of the premium or discount on the bonds over their life. An investor in bonds does not have the same kind of responsibility for determining the correct income earned on bonds purchased at a premium or a discount. He may not intend to hold the bonds to maturity. It is quite likely that most individual investors completely ignore the amortization of bond premium and discount as their records are kept on a cash basis. They record bonds purchased at cost price in an account called Bonds Owned, Securities Owned, Stocks and Bonds, Investments, or some similar title.

The responsibility to determine interest income on bonds correctly is greater in the case of institutions holding large amounts of bonds, and with trustees of estates especially where there are remaindermen.

Assume: *A* purchased from *B* on August 13, 19A, at 97, a $1,000.00, 6 per cent bond on which interest was payable each April and October 1. *B* purchased the bond from the issuing corporation at 99.

1. The entry on *B*'s books on August 13, 19A is

Cash	992.00	
Loss—Sale of Securities	20.00	
Bond Investment		990.00
Interest on Investments		22.00
To record the sale of bonds at 97 plus accrued interest for four months and twelve days.		

2. The entry on *A*'s books on August 13, 19A is

Bond Investment	970.00	
*Interest on Investments	22.00	
Cash		992.00
To record the purchase of bonds at 97 and accrued interest for four months and twelve days.		

3. The entry on *A*'s books on October 1, 19A is

Cash	30.00	
Interest on Investments		30.00
To record the receipt of six months' interest on bonds.		

Comments on Some Methods of This Chapter

In concluding this chapter, it is desirable to comment on several matters which have been explained in it. The amortiza-

* The debit might have been to Accrued Bond Interest Receivable, as the bondholder will receive back all the cash given the seller for interest when interest is paid at the end of the 6-month period. In 3 above the $30.00 includes the $22.00 given the seller and $8.00 earned by *A* between August 13, 19A and October 1, 19A.

tion of bond discount and bond premium was explained on simple arithmetical bases. There are other plans more scientific and accurate than those given. For these other plans the student is referred to more advanced texts. The methods of handling bond discount and bond premium on the books and on the balance sheet are the usual orthodox plans followed in general practice. They are not the most scientific methods of handling and treating these items on the books and the balance sheet. Here again, the student is referred to more advanced texts.

QUESTIONS

1. *a.* What is a bond?
   b. What do you mean by *under seal?*
   c. Distinguish a bond from a note.
   d. Is a bond secured, necessarily?
   e. Does the United States have any outstanding bonds? Do you happen to know if they are selling in the market at par, above, or below par?
2. What do you mean by a secured bond? An unsecured bond? A debenture bond?
3. Do you think a corporation would need a sinking fund, if its outstanding bonds were *serial* bonds payable in equal annual amounts over their life? Explain.
4. What is a first mortgage bond? A convertible bond? A callable bond?
5. Does a corporation know who holds its bonds? Explain.
6. How may interest on bonds be paid by the debtor corporation? Explain.
7. Why is it desirable and customary that stockholders approve a bond issue before issuance?
8. *a.* Suppose you purchase a $100.00 government bond at $102\frac{26}{32}$, how much do you pay for it?
   b. How much would you have to pay for four $1,000.00 bonds, if you bought them at $90\frac{3}{8}$?
9. Why is it customary for the buyer to pay the seller for the accrued interest on a bond, while the purchaser of stocks pays only the market price?
10. Expenses connected with the issuance of bonds are charged to what account? Name a few of such expenses.

11. What accounts show whether bonds were issued at amounts above or below par?
12. Can you see any fundamental difference between a discount allowed when stock is issued and a discount allowed when a bond is issued? Are both expenses? Is either an expense in whole or in part in the year of issue?
13. In which section of a balance sheet should each of the following accounts be found?
    a. Unamortized Bond Discount and Expense.
    b. Accrued Bond Interest Payable.
    c. Treasury Bonds.
    d. Unamortized Bond Premium.
    e. Premium on Capital Stock.
    f. Reserve for Sinking Fund.
    g. Bonds Payable.
    h. Sinking Fund.
14. *a.* If the account Unamortized Bond Discount and Expense is being amortized each year, what is the annual adjusting entry?
    b. If the account Unamortized Premium on Bonds is being amortized each year, what is the annual adjusting entry?
15. Bonds may be retired by payment in cash, by refunding, or by conversion. Explain these three plans and give the type of entry needed to record a retirement under each.
16. *a.* Are treasury bonds an asset? Why?
    b. How are treasury bonds shown on a balance sheet?
17. Why do you think unissued first mortgage bonds may be acceptable as collateral security for a loan while unissued capital stock may not be acceptable even if the company has paid a high rate of dividend over a long period of time?
18. In a given year during the lifetime of a bond issue, what is the effect on the statement of profit and loss of amortizing the premium realized at the time the bonds were sold?
19. Two corporations each need cash to acquire fixed assets. Corporation A sells $100,000.00 of capital stock at a 10 per cent premium and Corporation B sells $100,000.00 of bonds at a 10 per cent premium. What is the effect of issuing these securities on the net worth of each of these corporations?
20. *a.* If you buy a share of stock at $120.00 and it pays a dividend of $6.00 a year, what rate of return are you receiving?

b. If the share of stock referred to in *a* has a par of $100.00, what dividend rate is being paid by the company?

c. If you buy a $1,000.00 4 per cent bond at 80, what annual rate of return are you receiving on cost?

d. If the bond matures in two years, will you have earned the same, a higher, or a lower rate of return than given in your answer to *c*? Explain.

CHAPTER XXVIII

MANUFACTURING ACCOUNTS AND STATEMENTS

Up to this point, practically all the discussion and illustrations of this text have been limited to the accounts and statements needed by an enterprise doing a trading business. Consideration will now be given to the accounts and statements of an enterprise engaged in a manufacturing business.

A trading business sells essentially the same product it buys. A manufacturer buys one product and by means of labor applied to it transforms or constructs it into another more valuable product or products which he sells. The raw product which one manufacturer buys may be the finished product of another manufacturer. In the woolen industry, for example, a scourer prepares the raw wool for the spinner; the finished product of the scourer is the raw material of the spinner who manufactures yarn from it. The yarn which is the finished product of the spinning mill is raw material to the weaving enterprise which in turn produces a cloth fabric. The finished product of the weaving mill is the raw material of other manufacturers such as tailors. This illustration from the woolen industry might be supplemented with illustrations from many other industries.

All the accounts and statements considered heretofore may be essential to a manufacturer. Because of the character of a manufacturing business, however, certain additional accounts are needed. A consideration of these new accounts, and the treatment of them in the accounting processes already considered and in the statements, is the purpose of this chapter.

Elements of Manufacturing Cost

In manufacturing a product there are three basic costs—material costs, labor costs, and manufacturing expenses.

Material Costs. Material costs are the costs of all substances or things which enter into the finished product. These substances are called raw materials because they are to be converted

into or become a part of the new product. Thus woolen cloth is raw material to a tailor who converts it into a suit of clothing. Similarly, a speedometer is raw material to an automobile manufacturer who is going to use it as a part of the automobile he is manufacturing or assembling. In the manufacture of office desks, wood, nails, screws, metal caps for legs, locks, glue, paint, and so on are materials entering into the new product.

Some substances or things used in manufacturing do not enter into the product but are necessary in its creation. They are factory supplies and enter into manufacturing-cost determination, not under the heading Raw Materials but under titles such as Factory Supplies or Factory Expenses. For example, in the manufacture of office desks, sandpaper, cleaning and polishing fluids, and rags do not become a part of the product but they are necessary in its manufacture.

Labor Costs. Labor costs are the costs of the services of employees whose work is connected with manufacturing; they are divided into direct and indirect labor costs. Direct labor costs are the costs of the services of employees who work directly on the raw materials whether by hand labor or with the aid of machines.

Indirect labor costs are the costs of the services of employees who labor indirectly in the creation of the product, such as superintendents, foremen, engineers, repairmen, firemen, watchmen, tool grinders, timekeepers and elevator men.

Manufacturing Expenses. Manufacturing expenses are known also as Factory Overhead, Factory Burden, Indirect Factory Expenses, Indirect Manufacturing Expenses, and Manufacturing Overhead. In this classification are expenses such as: rent of factory; taxes, insurance, repairs, and depreciation of the factory building, if owned; light, heat, and power; depreciation of machinery; factory supplies; and repairs to machinery.

Account Titles Peculiar to a Manufacturing Enterprise

The liability, net worth, and income accounts of a manufacturer are the same as those heretofore considered for a trading enterprise.

A number of fixed asset titles used by manufacturing enterprises, such as Land, Buildings, Machinery, and Patterns were considered in Chapter II. Additional and equally descriptive

fixed asset titles, such as Factory Furniture and Fixtures, and Tools are used when necessary.

Among the current assets of a manufacturer, the principal new titles are for inventories. Heretofore, the use of the unqualified word inventory in the accounts referred to the inventory of merchandise. A manufacturer cannot list inventory so simply; his inventory is in three parts—raw materials, partly finished goods, and finished goods.

Inventory of Raw Materials Account. The Inventory of Raw Materials account presents no new problems. The valuation of raw materials inventory is usually on a cost or a cost or market basis as explained in Chapter XIV for inventory of merchandise.

Inventory of Work in Process Account. Sometimes the account title Inventory of Partly Finished Goods is used to designate partly manufactured products. The account title which is the heading of this paragraph will be the one used in this chapter. Some enterprises, especially those engaged in the production of a product where the process takes but a few hours, seldom have an inventory of work in process.

An inventory of work in process should be valued to include the cost of the raw materials used and the labor applied in the creation of the partly finished goods as well as a proportionate share of the indirect factory expenses. In the absence of an adequate cost-accounting system, the valuation of an inventory of work in process is likely to be an arbitrary valuation, especially if the enterprise manufactures a number of products.

Inventory of Finished Goods Account. Inventory of Finished Goods is the account title used to record the value of manufactured goods on hand. If some finished goods were on hand at the end of the preceding period, in the absence of exact inventory records it may be assumed they were sold during the current period. The assumption just mentioned makes possible the valuation of all finished goods on hand at the end of a period at current cost price, if that basis of valuation is followed.

The expense accounts of a manufacturer include a number of accounts not considered previously.

Direct Labor Account. Direct Labor is the account title to which is charged the wages earned by workmen who labor directly, either by hand or with the aid of machines, in the creation of the finished product of an enterprise.

Indirect Labor Account. Indirect Labor is the account to which is charged the wages or salaries earned by workmen whose labor is not directly applied in the creation of the finished product, such as superintendents, foremen, and firemen.

Wages and salaries earned by indirect labor are charged very often to accounts other than Indirect Labor. For example, the salary of the superintendent may be charged to Superintendent's Salary; the salaries and wages of engineers and firemen may be charged to Light, Heat, and Power; the wages of machine repairmen to Repairs to Machinery; and so on.

Other expense account titles peculiar to a manufacturer include such accounts as: Rent of Factory Building; Property Taxes on Factory, Factory Building Insurance, Repairs to Factory Building, and Depreciation of Factory Building, if the factory is owned; Light, Heat, and Power; Depreciation of Machinery; Factory Supplies; Repairs to Machinery; and so on. Such accounts are manufacturing expenses.

Cost of Goods Manufactured and Cost of Goods Sold

Cost of goods manufactured means the cost of producing the finished products turned out by a factory during a fiscal period. Cost of goods sold means, in a manufacturing enterprise, the cost of producing the finished product which was marketed during the period, whether made in that period or a prior one. In its first period of operation, the cost of goods sold by a factory is the cost of the goods manufactured less the inventory value of any unsold finished products. In any period other than the first, the cost of goods sold is the cost of goods manufactured plus the value of the finished goods on hand at the beginning of the period, less the value of finished goods inventory at the end of the period.

A schedule to show the detailed costs of manufacturing in a period and the manufacturing cost of the goods sold is shown on the next page.

The schedule on page 442 is designed to bring out two important cost figures. First, the cost of goods manufactured, $86,800.00 in the illustration, and secondly, the manufacturing cost of goods sold, $85,000.00 in the illustration. Suppose the Hall Machine Company manufactures only one kind of machine and only one size. If it manufactured 434 machines in the

SCHEDULE A

THE HALL MACHINE COMPANY

STATEMENT OF THE COST OF GOODS MANUFACTURED AND COST OF GOODS SOLD

January 1, 19__ to December 31, 19__

Inventory of Work in Process, January 1, 19__			$ 9,000.00
Cost of Raw Materials:			
Inventory of Raw Materials, January 1, 19__		$ 1,790.00	
Purchases of Raw Materials		35,000.00	
Transportation In		700.00	
		$37,490.00	
Less:			
Inventory of Raw Materials, December 31, 19__	$1,300.00		
Purchase Returns and Allowances	600.00	1,900.00	
Cost of Raw Materials Used			35,590.00
Direct Labor			31,000.00
Manufacturing Expenses:			
Light, Heat, and Power		$ 2,160.00	
Indirect Labor		9,000.00	
Factory Supplies		650.00	
Insurance		700.00	
Property Taxes		480.00	
Depreciation of Machinery		500 00	
Depreciation of Building		320 00	
Total Manufacturing Expenses			13,810 00
Total			$89,400.00
Less: Inventory of Work in Process, December 31, 19__			2,600.00
Cost of Goods Manufactured			$86,800.00
Inventory of Finished Goods, January 1, 19__			4,400.00
Cost of Goods Available for Sale			$91,200.00
Inventory of Finished Goods, December 31, 19__			6,200.00
Manufacturing Cost of Goods Sold			$85,000.00

period just ended then the average cost of manufacturing a machine was $200.00 ($86,800.00 ÷ 434). The inventory of finished goods on hand at the end of the period is priced at the average cost. The $6,200.00 inventory of finished goods, December 31, 19__, is the value of 31 machines on hand at the end of the period.

The inventory of finished goods at the beginning of the period was valued at that time at the average cost price of the period just ended, 20 machines at $220.00 each—a total of $4,400.00. The average cost price of a machine sold in the period just

closed will not agree with the average cost of producing a machine in the period because of the difference in the manufacturing cost of the machines on hand at the beginning of the period and those produced during the period. If 20 machines were on hand January 1, 19__ and 434 were manufactured during the year, then 454 machines represent the total available for sale during the period. Since 31 machines are on hand December 31, 19__, then 423 were sold. The cost of the 423 machines sold was $85,000.00, hence the average cost of a machine sold during the period was $200.945.

The method just illustrated for determining the average cost of manufacturing a unit or the average cost price of a unit sold cannot be applied in the case of a factory which produces more than one product or more than one size of a product.

The information shown in the Statement of the Cost of Goods Manufactured and Cost of Goods Sold is presented very often in two statements. One statement is headed the Cost of Goods Manufactured, and shows all the facts presented down to and including Cost of Goods Manufactured, $86,800.00. The other statement is headed Statement of the Cost of Goods Sold; it shows the opening and closing finished goods inventories and the cost of goods manufactured in the current period as disclosed by the Statement of the Cost of Goods Manufactured.

Statements

No change in principle is involved in the presentation of the balance sheet and the statement of profit and loss for a manufacturing enterprise.

Because of the increase in the number of items affecting the Cost of Goods Sold section of the profit and loss statement, it is customary to present that information in a supporting schedule. Cost of goods sold is then expressed on the statement of profit and loss merely as a summary, with proper reference to its supporting schedule.

The practice of condensing the statement of profit and loss is not limited to the Cost of Goods Sold section. Summary figures are used frequently for any one or for all of the main sections of the statement. Thus the Sales section, the Cost of Goods Sold section, or the sections devoted to Selling Expenses, General and Administrative Expenses, Other Expenses and

Losses, and Other Income may be expressed as summaries but with appropriate reference in each case to a supporting schedule. The practice of condensing some or all of the sections of the Statement of Profit and Loss avoids the expansion of the statement to a size where it becomes difficult to handle or understand. For use by the management of an enterprise, any summary on the statement of profit and loss should be supported by an itemized schedule. For use in published reports, supporting schedules need not always be shown.

Balance sheets are also prepared in condensed form. When so prepared supporting schedules are set up for each class of items condensed in the statement.

Illustrative Statements

The balance sheet and a condensed statement of profit and loss with supporting schedules for the business of the Hall Machine Company are presented on pages 445, 446 and 447. Schedule A which shows the cost of goods sold is not repeated since it was presented on page 442.

Adjustments

The only variations in the procedure of adjusting the books of a manufacturing from those of a trading enterprise occur in connection with the recording of the inventories on hand at the end of the period. The three inventory accounts, Inventory of Raw Materials, Inventory of Work in Process, and Inventory of Finished Goods are debited for their respective amounts but the credits go to new accounts not considered previously; they do not go to the Cost of Goods Sold account.

The determination of the cost of goods manufactured involves so many accounts, it is customary for manufacturers, in the process of closing their books, to collect all of these manufacturing-cost accounts in the summary account Manufacturing. Since the cost of manufacturing for a period is reduced by the amount of any raw materials or partly finished goods on hand at the end of a period, it is necessary to credit Manufacturing for their amounts. The credit to Manufacturing is offset by the debits to Inventory of Raw Materials and Inventory of Work in Process

THE HALL MACHINE COMPANY

BALANCE SHEET, DECEMBER 31, 19__

Assets

Current Assets:			
Cash			$10,927.00
Accounts Receivable		$ 6,400.00	
Less Reserve for Bad Debts		306.00	6,094.00
Notes Receivable			4,600.00
Accrued Interest Receivable			20.00
Inventories, December 31, 19__:			
Finished Goods		$ 6,200.00	
Work in Process		2,600.00	
Raw Materials		1,300.00	10,100.00
Total Current Assets			$31,741.00
Deferred Charges:			
Prepaid Insurance			400.00
Fixed Assets:			
Land		$ 8,000.00	
Buildings	$16,000.00		
Less Reserve for Depreciation	2,000.00	14,000.00	
Machinery	$10,000.00		
Less Reserve for Depreciation	2,500.00	7,500.00	
Sales Furniture and Fixtures	$ 2,000.00		
Less Reserve for Depreciation	500.00	1,500.00	
Office Furniture and Fixtures	$ 4,000.00		
Less Reserve for Depreciation	1,000.00	3,000.00	
Total Fixed Assets			34,000.00
Total Assets			$66,141.00

Liabilities

Current Liabilities:		
Accounts Payable		$ 6,730.00
Property Taxes Accrued		600.00
Payroll Accrued		451.00
Reserve for Federal Taxes		400.00
Total Current Liabilities		$ 8,181.00
Proprietorship		
Capital Stock	$50,000.00	
Surplus	7,960.00	57,960.00
Total Liabilities and Proprietorship		$66,141.00

THE HALL MACHINE COMPANY
STATEMENT OF SURPLUS
For the Year Ended December 31, 19__

Balance, January 1, 19__	$5,000.00
Add: Net Profit for the Period	3,360.00
	$8,360.00
Less: Estimated Federal Taxes	400.00
Balance, December 31, 19__	$7,960.00

THE HALL MACHINE COMPANY
CONDENSED STATEMENT OF PROFIT AND LOSS
For the Year Ended December 31, 19__

Sales		$126,080.00	
Less: Sales Returns and Allowances		710.00	$125,370.00
Less: Cost of Goods Sold (Schedule A)			85,000.00
Gross Profit on Sales			$ 40,370.00
Less:			
Selling Expenses (Schedule B)		$ 24,220.00	
General and Administrative Expenses (Schedule C)		11,070.00	35,290.00
Net Profit on Sales			$ 5,080.00
Other Expenses and Losses:			
Sales Discounts	$2,370.00		
Loss on Sale of Machinery	150.00	$ 2,520.00	
Other Income:			
Interest Earned	$ 200.00		
Purchase Discounts	600.00	800.00	1,720.00
Net Profit for the Period			$ 3,360 00

SCHEDULE A
COST OF GOODS MANUFACTURED AND COST OF GOODS SOLD
(See page 442)

SCHEDULE B
SELLING EXPENSES

Light, Heat, and Power	$ 120.00
Sales Salaries	9,200.00
Traveling and Entertainment	3,000.00
Advertising	7,000.00
Commissions	4,500.00
Insurance	200.00
Property Taxes	60.00
Depreciation of Buildings	40.00
Depreciation of Sales Furniture and Fixtures	100.00
	$24,220 00

SCHEDULE C

GENERAL AND ADMINISTRATIVE EXPENSES

Light, Heat, and Power	$ 120.00
Office Salaries	10,000.00
Postage	110.00
Office Expenses	140.00
Insurance	100.00
Property Taxes	60.00
Depreciation of Buildings	40.00
Depreciation of Office Furniture and Fixtures	200.00
Bad Debts	300.00
	$11,070.00

The balance of the Manufacturing account is the cost of the goods manufactured; it is transferred in the closing process to the summary account Trading. Since Trading is also charged with all of the selling expense accounts, it must receive credit for any finished goods on hand at the end of the period. The entry to set up the inventory of finished goods in its own account at the end of a period is, therefore, a debit to the Inventory of Finished Goods account and a credit to Trading.

Adjusting Entries Illustrated

Assume the following supplementary data for the Hall Machine Company at the end of the fiscal period. These facts supplement the information shown on the books as revealed by a trial balance and represent items for which the books must be adjusted.

1. Inventories, December 31, 19__:		
a. Inventory of raw materials		$1,300.00
b. Inventory of work in process		2,600.00
c. Inventory of finished goods		6,200.00
2. Insurance expired during the period		1,000.00
3. Accruals:		
a. Accrued interest on notes receivable		20.00
b. Accrued property taxes		600.00
c. Accrued payroll:		
Direct labor	$200.00	
Indirect labor	50.00	
Fireman (Light, Heat, and Power)	6.00	
Sales salaries	95.00	
Office salaries	100.00	451.00
4. Reserves to be increased because of:		
a. Depreciation of buildings		400.00
b. Depreciation of machinery		500.00

c. Depreciation of sales furniture and fixtures....	$100.00
d. Depreciation of office furniture and fixtures....	200.00
e. Anticipated bad debts........................	300.00
5. Estimated federal taxes for the period............	400.00

The adjusting entries are

Inventory of Raw Materials, December 31, 19__	1,300.00	
Inventory of Work in Process, December 31, 19__	2,600.00	
Manufacturing		3,900.00
To set up the new inventories of raw materials and partly finished goods in their own accounts and to reduce manufacturing costs thereby.		
Inventory of Finished Goods, December 31, 19__	6,200.00	
Trading		6,200.00
To set up the new inventory of finished goods in its own account and to credit the Trading account.		
Insurance	1,000.00	
Prepaid Insurance		1,000.00
To reduce the Prepaid Insurance account by the amount which expired this period.		
Accrued Interest Receivable	20.00	
Interest Earned		20.00
To add to the Interest Earned account the interest earned but not collected and to set up the asset account.		
Property Taxes	600.00	
Property Taxes Accrued		600.00
To record property tax expense for the period and the liability thereon. Tax bill not yet due.		
Direct Labor	200.00	
Indirect Labor	50.00	
Light, Heat, and Power	6.00	
Sales Salaries	95.00	
Office Salaries	100.00	
Payroll Accrued		451.00
To record wages earned by employees but not yet due.		

Depreciation of Buildings	400.00	
Reserve for Depreciation of Buildings		400.00
To record depreciation for the period.		
Depreciation of Machinery	500.00	
Reserve for Depreciation of Machinery		500.00
To record depreciation for the period.		
Depreciation of Sales Furniture and Fixtures	100.00	
Reserve for Depreciation of Sales Furniture and Fixtures		100.00
To record depreciation for the period.		
Depreciation of Office Furniture and Fixtures	200.00	
Reserve for Depreciation of Office Furniture and Fixtures		200.00
To record depreciation for the period.		
Bad Debts	300.00	
Reserve for Bad Debts		300.00
To record the estimated loss through uncollectible accounts.		
Surplus	400.00	
Reserve for Federal Taxes		400.00
To record the estimated federal taxes for the period.		

Closing the Books

In closing the books of a manufacturing enterprise it is customary to close the balance of all nominal accounts which show manufacturing costs or reductions in such costs into the summary account Manufacturing rather than Profit and Loss. It should be recalled that Manufacturing receives a credit from the adjusting entries for the amount of the raw materials and work in process inventories. The balance of the Manufacturing account represents the cost of goods manufactured; it is closed by transfer to the summary account Trading.

Trading is charged with the cost of goods manufactured, with the amount of the inventory of finished goods on hand at

the beginning of the period, with the amount of any sales returns and allowances, and with all selling expense accounts. Trading is credited with the balance of the Sales account. It will be recalled that Trading is also credited, through the adjusting entries, with the amount of the inventory of finished goods on hand at the end of the period. The balance of Trading is transferred to the summary account Profit and Loss. The Trading account balance represents the profit or loss on sales before general and administrative expenses are deducted.

Allocation of Certain Expense Accounts. The allocation of certain expense accounts to a particular summary account in closing the books, raises some interesting questions. If the manufactured product is wound on a spool or placed in a container such as a box or bottle, the question arises whether the cost of such holders and containers and the expenses of placing the product on or in them are manufacturing or trading expenses. If such additional expenses are necessary to prepare the product for the market, put it in a condition ready for sale, they may be considered expenses of production and the accounts representing them closed to Manufacturing. Any expenses such as boxing and crating in order to ship a product may be considered expenses of trading and the accounts representing them closed to Trading.

In order that each of the three major departments of a manufacturing business—production, trading, and general administration may be charged its proper share of certain expenses, some expense accounts are closed by transfer in part to each of the three summary accounts—Manufacturing, Trading, and Profit and Loss. The distribution is on the basis of the benefit received from the particular expense account. Property taxes, depreciation of building, and repairs may be distributed on the basis of the space occupied by each major department. If the property is rented and not owned, rent may be distributed on the same basis. Departmental electricity costs may be measured by meter readings, heating costs distributed on a space occupied basis, and so on. Some costs have to be distributed rather arbitrarily.

Closing Entries Illustrated

The schedule of distribution for certain of the expense accounts of the Hall Machine Company is as follows:

	To Manufacturing	To Trading	To Profit and Loss
Insurance	70%	20%	10%
Property Taxes	80%	10%	10%
Light, Heat, and Power	90%	5%	5%
Depreciation of Buildings	80%	10%	10%

The closing entries are

Manufacturing	91,300.00	
Inventory Work in Process, January 1, 19—		9,000.00
Inventory Raw Materials, January 1, 19—		1,790.00
Purchases Raw Materials		35,000.00
Transportation In		700.00
Factory Supplies		650.00
Direct Labor		31,000.00
Light, Heat, and Power		2,160.00
Indirect Labor		9,000.00
Insurance		700 00
Property Taxes		480.00
Depreciation of Buildings		320.00
Depreciation of Machinery		500.00
To charge Manufacturing with all expenses of production.		
Purchase Returns and Allowances	600.00	
Manufacturing		600.00
To reduce manufacturing costs by the amount of the Purchase Returns and Allowances account.		
Trading	86,800.00	
Manufacturing		86,800.00
To charge the trading department with the cost of goods manufactured.		
Trading	29,330.00	
Inventory Finished Goods, January 1, 19—		4,400.00
Sales Returns and Allowances		710.00
Light, Heat, and Power		120 00
Sales Salaries		9,200.00
Traveling and Entertainment		3,000.00
Advertising		7,000.00
Commissions		4,500.00
Insurance		200.00
Property Taxes		60.00

Depreciation of Buildings		40.00
Depreciation of Sales Furniture and Fixtures		100.00
To charge Trading with the opening inventory of finished goods and with all expenses of selling.		
Sales	126,080.00	
Trading		126,080.00
To credit Trading with the amount of gross sales.		
Trading	16,150.00	
Profit and Loss		16,150.00
To transfer selling profit to Profit and Loss.		
Profit and Loss	11,070.00	
Light, Heat, and Power		120.00
Office Salaries		10,000.00
Postage		110 00
Office Expenses		140.00
Insurance		100.00
Property Taxes		60.00
Depreciation of Buildings		40.00
Depreciation of Office Furniture and Fixtures		200 00
Bad Debts		300.00
To transfer the expenses of administration to Profit and Loss.		
Profit and Loss	2,520.00	
Sales Discounts		2,370.00
Loss on Sale of Machinery		150.00
To close the financing and other expenses to Profit and Loss.		
Interest Earned	200.00	
Purchase Discounts	600.00	
Profit and Loss		800.00
To transfer the other income accounts to Profit and Loss.		
Profit and Loss	3,360.00	
Surplus		3,360.00
To transfer the net profit for the period to Surplus.		

After the adjusting and closing entries are posted to the summary accounts, they appear on the ledger substantially as follows:

Manufacturing

19—						19—					
Dec.	31	(Closing)		91,300	00	Dec.	31	(Adjusting)		3,900	00
							31	(Closing)		600	00
							31	(Closing)		86,800	00
				91,300	00					91,300	00

Trading

19—						19—					
Dec.	31	(Closing)		86,800	00	Dec.	31	(Adjusting)		6,200	00
	31	(Closing)		29,330	00		31	(Closing)		126,080	00
	31	(Closing)		16,150	00						
				132,280	00					132,280	00

Profit and Loss

19—						19—					
Dec.	31	(Closing)		11,070	00	Dec.	31	(Closing)		16,150	00
	31	(Closing)		2,520	00		31	(Closing)		800	00
	31	(Closing)		3,360	00						
				16,950	00					16,950	00

The Surplus account shows the following figures:

Surplus

19—						19—					
Dec.	31	(Adjusting)		400	00	Jan.	1	Balance		5,000	00
	31	Balance		7,960	00	Dec.	31	(Closing)		3,360	00
				8,360	00					8,360	00
						19—					
						Jan.	1	Balance		7,960	00

In the closing entries the account Loss on Sale of Machinery is closed as an expense to Profit and Loss; it might have been closed to Surplus as a loss resulting from insufficient depreciation charges in prior periods.

THE HALL MACHINE COMPANY
Work Sheet, December 31, 19__

	Trial Balance		Adjustments		Manufacturing		Trading		Profit and Loss		Balance Sheet	
	Dr.	Cr.	Dr	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
Cash	10,927 00										10,927 00	
Accounts Receivable	6,400 00										6,400.00	
Res. for Bad Debts		6 00		(k) 300 00								306.00
Notes Receivable	4,600 00										4,600.00	
Inv. Fin. Goods, Jan. 1, 19__	4,400 00						4,400 00					
Inv. Work in Process, Jan. 1 19__	9,000 00				9,000 00							
Inv. Raw Materials, Jan. 1, 19__	1,790 00				1,790 00							
Prepaid Insurance	1,400 00			(c) 1,000 00							400 00	
Land	8,000 00										8,000 00	
Buildings	16,000 00										16,000.00	
Res. for Dep. of Buildings		1,600 00		(g) 400.00								2,000.00
Machinery	10,000 00										10,000.00	
Res. for Dep. of Machinery		2,000 00		(h) 500.00								2,500.00
Sales Fur. and Fixt.	2,000 00										2,000.00	
Res. for Dep. Sales Fur. and Fixt.		400 00		(i) 100.00								500.00
Office Fur and Fixt.	4,000 00										4,000.00	
Res. for Dep. Office Fur. and Fixt.		800 00		(j) 200 00								1,000.00
Accounts Payable		6,730 00										6,730 00
Capital Stock		50,000 00										50,000.00
Surplus		5,000 00	(l) 400 00									4,600.00
Sales		126,080 00						126,080 00				
Sales Returns and Allowances	710 00						710 00					
Interest Earned		180 00		(d) 20.00						200 00		
Purchase Discounts		600 00								600.00		
Purchases Raw Materials	35,000 00				35,000.00							
Purchase Returns and Allowances		600 00				600 00						
Transportation In	700 00				700 00							
Factory Supplies	650 00				650 00							
Direct Labor	30,800 00		(f) 200 00		31,000 00							
Light, Heat, and Power	2,394 00		(f) 6 00		2,160 00		120.00		120 00			
Indirect Labor	8,950 00		(f) 50 00		9,000.00							
Sales Salaries	9,105 00		(f) 95 00				9,200.00					
Traveling and Entertainment	3,000 00						3,000.00					
Advertising	7,000 00						7,000 00					
Commissions	4,500 00						4,500 00					
Office Salaries	9,900.00		(f) 100.00						10,000.00			

Postage	110 00								110 00			
Office Expenses	140 00								140 00			
Sales Discounts	2,370 00								2,370 00			
Loss on Sale of Machinery	150 00								150 00			
	193,996 00	193,996 00										
Inv. Raw Materials, Dec. 31, 19__			(a) 1,300 00								1,300 00	
Inv. Work in Process, Dec. 31, 19__			(a) 2,600 00								2,600 00	
Manufacturing				(a) 3,900 00		3,900 00						
Inv. Finished Goods, Dec. 31, 19__			(b) 6,200 00								6,200.00	
Trading				(b) 6,200 00				6,200 00				
Insurance			(c) 1,000 00		700 00		200 00		100.00			
Accd. Interest Receivable			(d) 20 00								20.00	
Property Taxes			(e) 600 00		480 00		60 00		60.00			
Property Taxes Accd.				(e) 600 00								600.00
Payroll Accrued				(f) 451 00								451.00
Dep. of Buildings			(g) 400 00		320 00		40 00		40.00			
Dep. of Machinery			(h) 500 00		500 00							
Dep. of Sales Fur. and Fixt			(i) 100 00				100 00					
Dep. of Office Fur. and Fixt			(j) 200 00						200 00			
Bad Debts			(k) 300 00						300.00			
Res. for Federal Taxes				(l) 400 00								400.00
			14,071 00	14,071 00								
Cost of Goods Manufactured						86,800 00	86,800 00					
					91,300 00	91,300 00						
Trading Balance to P. and L.							16,150 00			16,150 00		
							132,280 00	132,280 00				
Net Profit for the Period									3,360 00			3,360 00
									16,950 00	16,950 00	72,447 00	72,447 00

THE HALL MACHINE COMPANY
WORK SHEET, DECEMBER 31, 19__

	Trial Balance		Adjustments		Manufacturing		Trading		Profit and Loss		Balance Sheet	
	Dr.	Cr.	Dr	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
Cash	10,927 00										10,927 00	
Accounts Receivable	6,400 00										6,400.00	
Res. for Bad Debts		6 00		(k) 200 00								306.00
Notes Receivable	4,600 00										4,600.00	
Inv. Fin. Goods, Jan. 1, 19__	4,400 00						4,400 00					
Inv. Work in Process, Jan. 1, 19__	9,000 00				9,000 00							
Inv. Raw Materials, Jan. 1, 19__	1,790 00				1,790 00							
Prepaid Insurance	1,400 00			(c) 1,000 00							400 00	
Land	8,000 00										8,000 00	
Buildings	16,000 00										16,000.00	
Res. for Dep. of Buildings		1,600 00		(g) 400.00								2,000.00
Machinery	10,000 00										10,000.00	
Res. for Dep. of Machinery		2,000 00		(h) 500.00								2,500.00
Sales Fur. and Fixt	2,000 00										2,000.00	
Res. for Dep. Sales Fur. and Fixt		400 00		(i) 100.00								500.00
Office Fur and Fixt	4,000 00										4,000.00	
Res. for Dep. Office Fur. and Fixt		800 00		(j) 200.00								1,000.00
Accounts Payable		6,730 00										6,730 00
Capital Stock		50,000 00										50,000 00
Surplus		5,000 00	(l) 400 00									4,600.00
Sales		126,080 00						126,080 00				
Sales Returns and Allowances	710 00						710 00					
Interest Earned		180 00		(d) 20.00						200 00		
Purchase Discounts		600 00								600.00		
Purchases Raw Materials	35,000 00				35,000.00							
Purchase Returns and Allowances		600 00				600.00						
Transportation In	700 00				700 00							
Factory Supplies	650 00				650 00							
Direct Labor	30,800 00		(f) 200 00		31,000 00							
Light, Heat, and Power	2,394 00		(f) 6 00		2,160 00		120.00		120 00			
Indirect Labor	8,950 00		(f) 50 00		9,000.00							
Sales Salaries	9,105 00		(f) 95 00				9,200.00					
Traveling and Entertainment	3,000 00						3,000.00					
Advertising	7,000 00						7,000 00					
Commissions	4,500.00						4,500.00					
[illegible]	9,000 00		(f) 100 00						10,000 00			
Postage	110 00								110.00			
Office Expenses	140 00								140 00			
Sales Discounts	2,370 00								2,370 00			
Loss on Sale of Machinery	150 00								150.00			
	193,996 00	193,996 00										
Inv. Raw Materials, Dec. 31, 19__			(a) 1,300 00								1,300.00	
Inv. Work in Process, Dec. 31, 19__			(a) 2,600 00								2,600.00	
Manufacturing				(a) 3,900.00		3,900 00						
Inv. Finished Goods, Dec. 31, 19__			(b) 6,200 00								6,200.00	
Trading				(b) 6,200.00				6,200.00				
Insurance			(c) 1,000 00		700 00		200 00		100 00			
Accd. Interest Receivable			(d) 20 00								20.00	
Property Taxes			(e) 600 00		480 00		60 00		60 00			
Property Taxes Accd.				(e) 600 00								600 00
Payroll Accrued				(f) 451.00								451.00
Dep. of Buildings			(g) 400 00		320 00		40.00		40.00			
Dep. of Machinery			(h) 500 00		500 00							
Dep. of Sales Fur. and Fixt.			(i) 100 00				100.00					
Dep. of Office Fur. and Fixt.			(j) 200 00						200 00			
Bad Debts			(k) 300 00						300.00			
Res. for Federal Taxes				(l) 400 00								400.00
			14,071 00	14,071 00								
Cost of Goods Manufactured						86,800 00	86,800 00					
					91,300 00	91,300 00						
Trading Balance to P. and L.							16,150 00			16,150 00		
							132,280 00	132,280 00				
Net Profit for the Period									3,360 00			3,360 00
									16,950 00	16,950 00	72,447 00	72,447 00

As of the first day of the new period, The Hall Machine Company should make readjusting entries to transfer the Accrued Interest Receivable and the Payroll Accrued accounts to their respective operating accounts. Payroll Accrued would be transferred to the various labor and salary accounts.

The Work Sheet

The adjusting entries are indicated clearly in the Adjustment columns of the work sheet. The data for a Cost of Goods Manufactured statement are shown in the Manufacturing columns. The data for a Cost of Goods Manufactured and Cost of Goods Sold statement are shown in the Manufacturing and Trading columns. The detailed selling expense information for the statement of profit and loss is shown in the Trading Debit column and the general and administrative expense information in the Profit and Loss Debit column. The data for the Other Expenses and Losses and Other Income sections of the profit and loss statement are also given in the Profit and Loss columns. The Balance Sheet columns supply the data for the preparation of that statement.

Work Sheet Illustrated

In the work sheet for The Hall Machine Company on pages 454 and 455, it will be noticed that the Adjusted Trial Balance columns are omitted. A person familiar with the preparation of a columnar statement of this character does not need to have the first four columns summarized in Adjusted Trial Balance columns.

Anyone studying this work sheet will find it profitable to compare

1. The statement of profit and loss given on page 446 and its supporting schedules with the items shown in the Manufacturing, Trading, and Profit and Loss columns.
2. The adjusting entries given on pages 448 and 449 with the items in the Adjustments columns.
3. The balance sheet given on page 445 with the items in the Balance Sheet columns.
4. The closing entries given on pages 451, 452, with the items in the Manufacturing, Trading, and Profit and Loss columns.

Comparison with Cost Accounting

The subject of manufacturing accounts and statements should not be confused with the subject of cost accounting. It is true, the methods explained in this chapter show how the cost of goods manufactured and the cost of goods sold may be determined. If an enterprise makes just one product in one size, even the average cost of a unit manufactured and the average cost of a unit sold may be determined, but it should be pointed out that such cost determination is made at the end of a period after all transactions have occurred. Furthermore, the methods of this chapter determined the cost of materials consumed by deducting the value of materials on hand at the end of a period from the sum of the amount on hand at the beginning of the period plus the amount purchased. A cost-accounting system keeps record of the amount and value of materials consumed, how they are used, and indicates the amount and value of the inventory which should be on hand at the end of a period.

Labor utilized in the methods just considered is the amount paid for labor plus the amount accrued. In a cost system, the utilization of labor is recorded as applied and the amount used should agree with the amount paid for and accrued.

There are many other comparisons it would be possible to make with a cost-accounting system. The purpose of this very brief comparison on just a few points is to prevent anyone thinking that the methods just described constitute what is known as a cost-accounting system.

Students interested in accounting invariably enjoy the work on manufacturing accounts and statements. It is valuable not only for itself but as a splendid background for the subsequent study of cost accounting.

QUESTIONS

1. *a.* What is the essential difference between a trading and a manufacturing business?
   b. Name some assets a manufacturing enterprise might have which a trading business might not have.
   c. What kinds of inventories is a manufacturer likely to have? Explain each kind.
   d. Name and explain some of the expense accounts peculiar to a manufacturing enterprise.

2. *a.* Name the three basic costs of producing a pair of shoes.
   b. Name and explain a few of the particular expense titles which are included in the group known as "manufacturing expenses."
3. *a.* Name some classes of labor the costs of which are considered as indirect labor costs.
   b. What do you mean by direct labor costs?
4. *a.* What conditions would have to apply, if the Cost of Goods Manufactured figure was the same as the Cost of Goods Sold?
   b. Does the inventory of work in process at the beginning of the year enter into the calculation of the current Cost of Goods Manufactured? Why or why not?
   c. Does the inventory of raw materials at the beginning of the year enter into the calculation of the current Cost of Goods Manufactured? Why or why not?
   d. Does the inventory of finished goods at the beginning of the year enter into the calculation of the current Cost of Goods Manufactured? Why or why not?
5. *a.* Must the Cost of Goods Manufactured be known before the inventory of finished goods at the end of the year is priced? Explain.
   b. Is the average cost of a unit sold necessarily the same as the average cost of manufacturing a unit during a given year? Explain.
6. *a.* If the cost of the goods manufactured is........ $48,000.00
   If the manufacturing cost of the goods sold is... 50,000.00
   If the inventory of finished goods at the beginning of the year is.............................. 5,000.00
   The final inventory of finished goods is......... ?
   b. If the manufacturing cost of goods sold is....... $75,000 00
   If the opening inventory of finished goods is.... 6,200.00
   If the final inventory of finished goods is....... 5,400.00
   The cost of the goods manufactured is......... ?
   c. Assume the following figures:
   The opening inventory of finished goods consisted of................................ 1,250 units
   The final inventory of finished goods consisted of 1,800 units
   Units produced during the year.............. 16,500
   Units sold during the year.................. ?
   d. Combine the following facts with those of *c* and determine the average manufacturing cost of a unit produced during the year. Assume the goods in the opening inventory were all sold.
   Manufacturing cost of the goods sold........... $41,345.00
   Opening inventory of finished goods............ 3,125.00
   Final inventory of finished goods.............. 4,680.00

e. On the basis of the facts of *c* and *d* how does the average cost of manufacturing a unit this past year compare with the year before?

7. The work sheet of a manufacturer contains what new columns from those used previously in this text? Why are these new columns used?

8. In closing the books of a manufacturer, which accounts are closed to:
   a. The debit of Manufacturing?
   b. The credit of Manufacturing?
   c. The debit of Trading?
   d. The credit of Trading?
   e. The debit of Profit and Loss?
   f. The credit of Profit and Loss?

9. Are the following items transferred in closing to the debit or credit side of Manufacturing, Trading, or Profit and Loss? If necessary qualify your answer.
   a. Advertising.
   b. Office Salaries.
   c. Traveling and Entertainment.
   d. Final Inventory of Finished Goods.
   e. Delivery Expenses.
   f. Wages of Factory Watchman.
   g. Insurance on Factory Buildings.
   h. Transportation In.
   i. Opening Inventory of Raw Materials.
   j. Depreciation of Store Building.
   k. Interest Earned.
   l. Depreciation of Office Furniture and Fixtures.
   m. Postage.
   n. Purchase Discounts.
   o. Bad Debts.
   p. Light, Heat and Power.
   q. Sales Discounts.
   r. Purchase Returns and Allowances.

10. Indicate whether you believe manufacturers would consider each of the following items a manufacturing or a selling expense. Explain for each.
    a. Placing cigarettes in packages. Cost of the package paper.
    b. Placing cigarette packages in cellophane. Cost of the cellophane.
    c. Boxing a machine for overseas shipment. (An exceptional shipment.)
    d. Placing pen points in boxes of 100 each. Cost of the boxes.
    e. Cost of display cards for use in retail outlets.
    f. Bottling toilet water. Cost of the bottles.
    g. Placing packages of cigarettes in cartons. Cost of the cartons.

11. Suppose the one building is used for the factory, sales rooms, and office. On what basis would you suggest the distribution of each of the following expenses to Manufacturing, Trading, and Profit and Loss?

a. Depreciation of Building.
b. Light, Heat, and Power.
c. Insurance on Building.
d. Property Taxes.
e. Repairs to Building.

12. *a.* Why does a manufacturer want to know his manufacturing costs as distinct from his selling, his general and administrative, and his financial expenses?

b. Should the accounting system be designed and operated to give the manufacturer the information under the different headings suggested in *a*? Why?

c. In a large corporate enterprise what title do you think is given to the executive in charge of
(1) Finances?
(2) Production?
(3) Accounting?
(4) Sales?

CHAPTER XXIX

THE VOUCHER SYSTEM

In a small enterprise a few officers can supervise personally all important matters. In a large enterprise this is impossible; authority is delegated, therefore, by the chief executives to departmental executives, and greater reliance is placed on systems of internal check. For example, before the accounting department records or the treasurer's office pays a purchase invoice, the several departments concerned with the transaction represented by the invoice must indicate their approval of it. A plan of internal check for purchase invoices, in fact for all cash disbursement items, is known as the voucher system.

Voucher System Defined

The voucher system is a plan and method of procedure for the verification, recording, and payment of all items, other than items to be paid from petty cash, which require the disbursement of cash.

Most cash disbursements result from transactions which originate in the purchase of raw materials, merchandise, other assets, or services. For such items the voucher system provides usually

1. For the verification, by the departments concerned, of all invoices and bills before they are recorded by the accounting department and the disbursement authorized by the proper officer.
2. For the approval by the departments concerned prior to recording and authorization for payment, of all cash disbursement items for which invoices or bills are not received, such as wage, salary, and traveling expense items.
3. For the recording, at the time of incurrence, of all approved financial obligations as liabilities of the enterprise, whether they are to be paid immediately or at a later date.

4. For the recording of all cash disbursements, other than those from petty cash, as decreases of liabilities.
5. For the showing of liabilities on open account as a file of approved unpaid vouchers and not as accounts in a subsidiary ledger for creditors.
6. For the use of the control account Vouchers Payable and the elimination of the Accounts Payable control account.

The Verification of an Invoice

To illustrate the requirements of the voucher system for the approval of an invoice, bill, or other item for which cash is disbursed, the verification of a purchase invoice is considered. The section of Chapter XVII devoted to Papers and Practices for Purchases should be reread despite the fact that a brief restatement of that discussion follows.

The request for the purchase of goods originates in one of the departments of the business in the form of a requisition on the purchasing agent. The purchasing agent, in turn, purchases the goods by issuing a purchase order to the vendor, with a duplicate of the purchase order going to the requisitioning department.

When the purchase invoice is received it is not entered usually until the departments concerned with that invoice have approved it. A representative of the department which requisitioned the purchase or a representative of the receiving department, if there is such a department, must approve the invoice as to quantity, quality, and condition. A representative of the purchasing agent's department must also approve the invoice as to price and terms, after which a representative of the accounting department must approve it as to calculations and addition. Such a procedure localizes responsibility for the various approvals of an invoice to the departments concerned with that invoice, even to the representatives of the several departments, since each employee who approves an invoice must sign his name or place his initials on it.

Not all of the approvals may appear on the invoice itself. The department receiving the goods may indicate its approval on the duplicate purchase order which was sent to it by the purchasing agent, and to whom it is returned when the receipt of the goods is approved as to quantity, quality, and condition. If the approval of the goods by the receiving department is indicated

on the duplicate purchase order, that paper is then attached to the invoice in the purchasing agent's office. The approval of the purchasing agent's department may be made directly on the invoice and the invoice with duplicate purchase order attached is then sent to the accounting department for that department's approval of extensions and total.

After a representative of the accounting department has approved the invoice and has noted that all other necessary approvals have been made, a voucher to summarize the transaction is then prepared in the accounting department and sent to the officer authorized to approve it for payment at the proper time. The voucher, with invoice attached, or with invoice and duplicate purchase order attached, is then placed in a tickler file (a file arranged by dates) so that it will be noticed at the proper time for payment.

In practice, the procedure just outlined is modified to meet conditions peculiar to a particular enterprise. Bills for supplies and services are approved by the accounting department and the departments receiving the benefits, as well as by the purchasing agent's department, if the order was placed through that department.

Cash disbursement items for which neither invoices nor bills are received, such as wage and salary items, are approved by the departments concerned and by the accounting department. For example, a payroll sheet is approved by a representative of the payroll department or by the managers of the departments in which the employees are engaged and then by the accounting department for extensions and total.

Definition of a Voucher

A voucher is a paper on which a transaction is summarized, its correctness is certified, and an entry for it is authorized. There are various kinds of vouchers; for example the petty cash voucher was considered in Chapter XIX, and the journal voucher will be considered later in this chapter. The voucher used in connection with the voucher system is a voucher payable.

In the previous section it was stated that after an invoice is approved by the departments concerned with the transaction, a voucher (voucher payable) is prepared in the accounting department. That statement with respect to the preparation

of a voucher may be expanded to include not only invoices but any cash disbursement item which is approved by the departments concerned. A voucher is necessary for each cash disbursement or for a group of disbursement items payable to the same party.

In order to take advantage of discounts, vouchers are prepared and paid sometimes before the goods are received and the various departmental verifications of the invoice are noted. Such exceptions to the usual procedure occur only for purchases made from reliable or regular creditors and even then a most explicit memorandum is made as a follow-up, to insure the receipt of the goods and proper approvals from the departments concerned with them.

The voucher payable, generally called a voucher, is an accounting form on which is given a summary of the transaction it represents and authorization to record immediately and to pay at the proper time. Each voucher is numbered and usually shows on its face the name and address of the payee, the date prepared, the date due, a place to indicate the date paid, the terms, a place for the number of the check used in payment, the date of the invoice, a brief description of the transaction, the amount, the discount if any, the net amount payable, and the signatures of the persons authorized to approve it for recording and payment. Sometimes a voucher is prepared upon the receipt of an invoice and, with the invoice attached, is sent to the departments concerned for their approval of the invoice and voucher. Under such a procedure the initials or names of approving parties in the several departments are shown on the face of the voucher.

On the back of the voucher is printed usually a list of the accounts most frequently charged for cash disbursement items. At the time the voucher is prepared a member of the accounting department indicates, on this account list, the account or accounts to be debited and writes his initials to indicate who is responsible for this accounting decision. Debits to accounts not included in the printed list may be indicated in the Other Debits section. It is not necessary to indicate the account to be credited; a voucher when issued is always a credit to Vouchers Payable.

Vouchers may be prepared in a manner to permit folding as in the illustration on page 465. When a foldable voucher is used, the invoice and other memoranda pertaining to it are enclosed between the front and back.

Voucher Payable Illustrated

(Front)

Voucher No. 5-06
Check No. 431

WILSON WIRE WORKS
PITTSBURGH, PA.

Payee John R. Jones,
27 Main Street,
Erie, Pa.

Date Due 5/18/19__
Date Paid 5/17/19__
Date Issued 5/9/19__
Terms 2/10, n/30

Invoice Date	Description	Amount	
May 8	Invoice #327 Factory Supplies	39	50
	Discount		79
	Amount of check	38	71

Approved R. Price
For Accounting Department

Approved Ed. Lewis
For Treasurer

Space for Folding

(Back)

Voucher No. 5-06

Payee John R. Jones,
27 Main Street,
Erie, Pa.

Accounts Debited	Amount	
Purchases Raw Materials		
Direct Labor		
Indirect Labor		
Factory Supplies	39	50
Sales Salaries		
Store Supplies		
Office Salaries		
Office Expenses		
Other Debits:		
Total	39	50

Vouchers Payable Replace Creditors' Accounts

In the voucher system each individual voucher is the evidence of indebtedness so that it is not necessary to keep a subsidiary ledger for accounts with creditors. Approved invoices and bills may be accumulated for a short period, such as a week or two before vouchers are prepared for them. In this way a number of invoices from one creditor may be summarized on one voucher and approved for recording and payment. If the plan of accumulating invoices and bills before vouchering is followed, care must be exercised to prevent the loss of discount on invoices bearing different dates.

Vouchers Payable Control Account Replaces Accounts Payable

Since approved vouchers replace the subsidiary ledger accounts with creditors, the controlling account Vouchers Payable replaces the controlling account Accounts Payable. The Vouchers Payable account controls and its balance should agree with the total amount of unpaid approved vouchers as shown in the unpaid voucher file. The Vouchers Payable account balance should agree also with the total amount of unpaid approved vouchers as shown in the voucher register.

The Voucher Register

When prepared and approved for recording vouchers are entered in the voucher register. The voucher register is a columnar journal similar in appearance to the columnar purchase journal with a sundries section illustrated in Chapter XIX. In addition to the columns shown by a columnar purchase journal with a sundries section, the voucher register contains columns to indicate the number of each voucher, the date it is paid, and the check number used in payment. It will be noticed also that the credit column is captioned Vouchers Payable rather than Accounts Payable as in the purchase journal.

If the needs of the enterprise require them, columns other than those illustrated may be used. For example, some voucher registers are provided with columns to indicate the terms and the number of the invoice. If reference is made to the voucher

number and the vouchers are filed properly and promptly, these columns are not necessary.

The sundries columns of the illustrated voucher register provide a place to record any voucher to be charged to an account not represented by one of the special debit columns.

(Left Page) VOUCHER REGISTER Month of May 19__

Date		Payee	Voucher No.	Paid		Credit	Debit			
				Date	Check No.	Vouchers Payable	Purchases Raw Mat'ls	Direct Labor	Indirect Labor	Factory Supplies
May	1	Dudley Lumber Co.	5-01	5/9	429	250 00	250 00			
	3	Office Fur. Company	5-02			300 00				
	5	Bell Tel. Company	5-03	5/5	427	12 00				
	6	Neil Camp, Paymaster	5-04	5/6	428	4,800 00		2,800 00	500 00	
	8	Nat'l Brass Company	5-05	5/17	430	1,300 00	1,300 00			
	9	John R. Jones	5-06	5/17	431	39 50				39 50
	10	Acme Mchy. Company	5-07			600 00				
	11	B. L. Davis	5-08			470 00	470 00			
	31					36,500 00	7,000 00	12,500 00	2,500 00	150 00
						(17)	(23)	(25)	(26)	(27)

VOUCHER REGISTER (Right Page)

Debit						
Sales Salaries	Store Supplies	Office Salaries	Office Expenses	Sundries		
				Amount	F	Account
				300 00	9	Office Furniture and Fixtures
			12 00			
1,000 00		500 00				
				600 00	8	Machinery
7,000 00	125 00	3,000 00	75 00	4,150 00		
(28)	(29)	(30)	(31)			

The figures in parentheses below the double rulings indicate that the totals of the columns were posted, *i.e.*, the (17) below the Credit Vouchers Payable column shows that Vouchers Payable was credited in the general ledger for $36,500.00 and

the (23) below the Purchases Raw Materials column shows that the general ledger account with that title was debited with $7,000.00. Each item in the Debit Sundries section is posted individually and the folio shown in the F column of that section.

In the Date column is entered the date the voucher is recorded, not the date of the invoice. It should be repeated here, that the payees indicated in the register are not credited in any ledger. The number of each voucher is entered in the Voucher No. column. Vouchers are numbered consecutively. Sometimes a new series of numbers is started each month with the first number indicating the month, thus voucher 5-01 was number one in the month of May.

In the Paid columns are given both the date and the number of the check used in payment. Vouchers with blank spaces in the Paid columns are unpaid. The sum of the unpaid vouchers should agree with the balance of the Vouchers Payable control account in the general ledger and with the sum of the unpaid vouchers in the file. The inclusion of the Paid section makes the register the equivalent of a subsidiary ledger to the Vouchers Payable account. The register is both an original entry book and a subsidiary record to the Vouchers Payable control account.

Vouchering an Item to Be Paid Immediately

An item requiring immediate payment is vouchered and recorded in exactly the same manner as an item to be paid at a later date. If the item is a cash purchase it is recorded as though it were a credit purchase but the date and check number shown in the Paid section will show that it was paid the same day it was drawn. Voucher 5-03 to the Bell Telephone Company and voucher 5-04 prepared for payroll purposes were paid the same days they were drawn.

Filing Vouchers Payable

Approved vouchers pending payment are filed in a tickler file which is arranged by dates. This plan of filing tends to prevent a voucher being overlooked on the day it should be paid, hence tends to prevent the loss of purchase discounts.

Paid vouchers are filed in a numerical or an alphabetical file. If the latter, they are filed according to the name of the payee.

The Check Register

From the standpoint of debit and credit and postings to general and subsidiary ledgers, the cash disbursements journal of the voucher system is a much more elementary book than the cash disbursements journal of Chapter XVIII. It is merely a cashbook record of the payment of vouchers by checks, hence it is known also as the check register.

Since every cash disbursement, other than one for a petty cash item, is represented by a voucher payable, and the charges for each voucher are recorded in the voucher register, the check register is simply a cash record of voucher payments. It should show for each disbursement, the date, name of payee, voucher number, check number, and the debit and credit amounts. Although vouchers are numbered consecutively, they do not become due for payment in consecutive order, consequently the check numbers do not agree with the voucher numbers.

The Check Register Illustrated

CHECK REGISTER Month of May 19__

Date		Payee	Voucher No.	Check No.	Debit: Vouchers Payable		Credit: Purchase Discounts		Credit: Cash	
May	5	Bell Telephone Company	5-03	427	12	00			12	00
	6	Neil Camp, Paymaster	5-04	428	4,800	00			4,800	00
	9	Dudley Lumber Company	5-01	429	250	00	5	00	245	00
	17	Nat'l Brass Company	5-05	430	1,300	00	26	00	1,274	00
	17	John R. Jones	5-06	431	39	50		79	38	71
	31				28.500	00	300	00	28,200	00
					(17)		(52)		(1)	

The only postings from the illustrated check register are those for the column totals. The figures in parentheses below the column totals indicate the ledger pages to which the postings were made. The debit to the Vouchers Payable account is offset by the credits to Purchase Discounts and Cash.

The Voucher Check

The voucher system usually includes the use of voucher checks. A voucher check is a check on which, or on a detachable statement to which, is indicated the voucher number and the specific indebtedness covered by the check.

When the reference to the invoice, invoices, or other specific items covered by the check is made on the check itself, the indorsement of the check by the payee constitutes a receipt for the payment of the particular items. Whether the reference to the specific items paid by the check is on the check or on a detachable statement, the voucher check serves as a notice to the payee of the items paid by the check.

Illustrations of Voucher Checks

FORBES NATIONAL BANK 8-139
Fifth and Oakland

No. 429

Date		Invoice	Amount
May	1		250.00
		Total	250.00
		Discount	5.00
		Net	245.00

If incorrect, please return.

Pittsburgh, Pa. May 9, 19__

Pay to the Order of Dudley Lumber Co. $245.00

Two hundred forty five and 00/100. . Dollars

Wilson Wire Works
By ____________
Treasurer

Voucher No. 5-01

The voucher check illustrated above contains on its face the voucher number and a reference to the specific item covered by the check. Sometimes the reference to the item is made on the back of the check.

FORBES NATIONAL BANK 8-139
Fifth and Oakland

Voucher No. 5-01 No. 429

Pittsburgh, Pa. May 9, 19__

Pay to the Order of Dudley Lumber Co. $245.00

Two hundred forty five and 00/100.................... ....Dollars

Wilson Wire Works
By ____________________
Treasurer

Detach Before Depositing
If incorrect, please return check and attached statement.
Your indorsement of the above check will be considered an acceptance of full settlement for the following items.
Wilson Wire Works

Date		Invoice	Amount		Date		Invoice	Amount	
May	1		250	00					
							Total	250	00
							Discount	5	00
							Net	245	00

It will be noticed in the voucher check illustrated immediately above that the lower portion should be detached by the payee before the check itself is deposited.

Creditors' Voucher Index

Since a subsidiary ledger for creditors is not a part of the voucher system, there is no convenient current record to show the volume of business done with each creditor. If this information is desired, a creditors' voucher index-card system is maintained. A card for each creditor is kept in the file and on

it are shown the number and the amount of each voucher prepared in his favor, as in the illustration below. The file is arranged alphabetically.

Illustration of a Creditor's Voucher Index Card

WILSON WIRE WORKS

Name of Creditor Dudley Lumber Co.

Voucher Number	Amount		Voucher Number	Amount		Voucher Number	Amount	
5-01	250	00						
6-07	350	00						
6-59	650	00						
7-13	400	00						
8-04	300	00						

Sometimes, in lieu of a voucher index by creditors, an alphabetical file of duplicate vouchers is maintained.

Notes Payable under the Voucher System

If it should happen that an enterprise purchases an asset and issues a note in payment, the entry is recorded in the general journal. A liability on a note is shown in the Notes Payable, not the Vouchers Payable, account. If a purchase on a note were entered in the voucher register, the liability would be classed as a voucher payable which would be an incorrect classification. When a note payable matures and is to be paid, a voucher is prepared and recorded in the voucher register as a

debit to Notes Payable and a credit to Vouchers Payable. The payment of the voucher is then entered in the cash disbursements journal—check register.

After a voucher is prepared and recorded, if it is decided to issue a note for that particular liability in order to delay the date of payment or for other reason, an entry is made in the general journal as a charge to Vouchers Payable and a credit to Notes Payable. In addition to the general journal entry, a record is made in the Date and Check No. columns of the Paid section of the voucher register, to indicate that the particular voucher is canceled by the issuance of the note (see illustration on page 475). At the maturity of the note, a new voucher is prepared, approved, and entered in the voucher register as part of the procedure connected with its payment.

The Procedure for the Partial Payment of a Voucher

If a voucher cannot be paid in full and it is decided to pay part of it and to defer the balance to a later date, the original voucher is canceled and new vouchers are prepared. The entry to record this change in plan is entered in the voucher register as a debit to Vouchers Payable in the Sundries section and a credit to Vouchers Payable in the Credit Vouchers Payable column. A record is made also on the line for the original voucher in the Paid section of the voucher register, to indicate that the voucher was canceled and new vouchers issued (see illustration on page 475).

If an enterprise is unable, frequently, to meet its vouchers on due dates and must resort to partial payments, or the issuance of notes to defer the payment of vouchers, it is an indication that the current financial position of the enterprise is not in a sufficiently liquid condition.

Recording Purchase Returns and Allowances

If goods received are not up to standard, they are returned and a deduction is made on the invoice before it is vouchered. If an invoice as received is not fully approved for any reason and an allowance is obtained from the vendor, a deduction is made on the original invoice. The credit memorandum when received from the vendor is attached to the voucher and invoice but the entry in the voucher register is for the net amount.

If a credit memorandum is received after a voucher is recorded and in the same month, it is necessary to make a correction on the voucher and to draw a line through the debit and credit amounts as recorded in the voucher register and to insert the new correct amounts immediately above the canceled amounts. Another method of accomplishing the same result involves a correction on the voucher and another entry in the voucher register. Assume raw materials in the amount of $480.00 were purchased and received, the invoice approved and voucher 7-03 was issued. The debit and credit of the voucher register entry for this transaction are

Purchases Raw Materials	480.00	
Vouchers Payable		480.00

Subsequent to the above entry, but in the same month, an allowance of $50.00 is obtained from the vendor because the goods proved to be of a lower quality than was ordered. The entry for this credit is

Vouchers Payable	50.00	
Purchases Raw Materials		50.00

The above entry is the exact opposite of the original entry and it is customary to record it in the same columns immediately above the original entry but in red ink. The use of red ink indicates that the debit and credit shown in the red-ink figures are the reverse of the normal debit and credit of the columns. At the end of the month, when the column totals of the voucher register are obtained, the total of any column is the sum of its black-ink figures less the sum of any red-ink figures. Sometimes two totals, a black-ink total and a red-ink total, are shown for the same column. This is necessary, if it is desired to credit the amount of the credit memorandum to an account other than that indicated by the caption of the column, *i.e.*, if it is desired to credit a red-ink entry in the Purchases Raw Materials column to Purchase Returns and Allowances rather than to have the red-ink amount act as a reduction of the debit to Purchases Raw Materials.

Of the two plans mentioned above, the first plan of drawing a line through the figures of the original entry and inserting the new figures immediately above the canceled ones is far simpler than the second.

If a credit memorandum is received prior to the payment of a voucher but in a month subsequent to its issue, a general journal entry is made. For the facts of the credit memorandum used in the last situation, the general journal entry is

Vouchers Payable	480.00	
Purchases Raw Materials		480.00
To record the cancellation of voucher 7-03 for which a credit memorandum has been received. See voucher 8-09.		

Voucher 7-03 is marked canceled on the voucher register sheet of the month in which it was issued and reference is made to voucher 8-09.

The new voucher, number 8-09, for $430.00 referred to in the explanation of the above entry, is prepared and recorded in the usual way in the voucher register.

If it is desired to show on the records the amount of Purchase Returns and Allowances, the only change in the procedure just outlined is a modification of the general journal entry to the following:

Vouchers Payable	480.00	
Purchases Raw Materials		430.00
Purchase Returns and Allowances		50.00
To record the cancellation of voucher 7-03 because of the receipt of a $50.00 credit memorandum. See voucher 8-09.		

The method of recording exceptional items in the voucher register is indicated in the following illustration. Some of the debit columns of the voucher register which are not needed for the illustration are omitted.

VOUCHER REGISTER Month of July, 19__

Date		Payee	Voucher No.	Paid Date	Paid Check No.	Credit Vouchers Payable	Debit Purchases Raw Mat'ls	Debit Sundries Amount	F	Account
July	1	Hill Mchy. Company	7-01	7/21	Note Payable	1,200 00		1,200 00		Machinery
	2	B. S. Wallace	7-02	7/12	V7-04, 05	900 00	900 00			
						(50 00)	(50 00)			
	3	H. Lowry	7-03			480 00	480 00			
	12	B. S. Wallace	7-04			450 00		900 00		Vouchers Payable
	12	B. S. Wallace	7-05			450 00				
						3,430 00	1,330 00	2,100 00		

The record on the first line of the illustration on page 475 shows that on July 1, voucher 7-01 was issued in favor of the Hill Machinery Company for $1,200.00 and that on July 21 a note payable was issued to the Hill Machinery Company and the voucher was canceled. The insertion of the words Note Payable in the Check No. column indicates the issuance of the note. The entry for the note appears in the general journal.

The record on the second line indicates that voucher 7-02 was entered on July 2, that on July 12 it was canceled and vouchers 7-04 and 7-05 were issued in replacement of it. The last two mentioned vouchers are shown on lines 4 and 5 as debits and credits to Vouchers Payable for $900.00.

The record on July 3 shows that voucher 7-03 was issued in favor of H. Lowry for $480.00. The two $50.00 amounts in parentheses inserted immediately above the debit and credit amounts indicate a red-ink entry the debit and credit of which are the reverse of the column headings. The credit memorandum for this $50.00 entry is attached to the voucher and the face of the voucher is corrected to show an indebtedness to the vendor of $430.00.

The column totals are shown as an illustration of the fact that the correct total of a column with a red-ink insert is the sum of the black figures less the sum of any red-ink items.

The Vouchers Payable Account

The control account Vouchers Payable takes the place of the Accounts Payable account. The debits and credits to this account and their sources are shown in the following illustration:

VOUCHERS PAYABLE

19__					19__				
May	31	Check Register		xxx	May	1	Balance		xxx
		General Journal		xxx		31	Voucher Register		xxx
		Voucher Register		xxx					
		Balance		xxx					
				xxxxx					xxxxx
					June	1	Balance		xxx

The balance of the Vouchers Payable account should agree with the total of the vouchers in the unpaid voucher file and with the sum of the unpaid vouchers as shown in the voucher register.

Other Forms of Voucher Register

Now that the essential features of the voucher system have been outlined, some of the variations in its use, particularly with respect to the form of the voucher register, may be considered.

Voucher Register to Classify Purchases by Departments

If a business desires to keep record of its purchases by departments, a column for each department is provided in the debit distribution section of the voucher register. In the following illustration only the Credit Vouchers Payable and a few of the Debit distribution columns are shown. The columns which are omitted are the same as or comparable to the columns shown in the voucher register illustrated on page 467.

VOUCHER REGISTER

Credit	Debit			
Vouchers Payable	Purchases Dept. A	Purchases Dept. B	Purchases Dept. C	

Voucher Register with Purchase Discount Column

Some enterprises follow the definite policy of paying all invoices and bills within the discount period. Some enterprises even draw the check, for the amount of the invoice or bill less the discount, at the time the voucher is prepared. Under either or both of these situations, the amount of the purchase discount may be shown in the voucher register rather than in the cash disbursements journal.

VOUCHER REGISTER

Credit		Debit	
Vouchers Payable	Purchase Discounts	Purchases Raw Materials	
490 00	10 00	500 00	

The few columns of a voucher register shown in the above illustration are sufficient to indicate the use of the Purchase Discounts column. The figures indicate that $500.00 worth of raw materials was purchased, that the invoice was subject to a discount of $10.00, and that a voucher in the amount of $490.00 was prepared.

When a purchase discounts column is included in the voucher register, it is eliminated from the cash disbursements journal.

Under this plan, failure to pay a voucher within the discount period requires the preparation of another voucher for the amount of the discount not taken, or the cancellation of the old voucher and the preparation of a new one for the full amount of the invoice.

Under this plan also, liabilities on vouchers are shown at net amounts and purchase discount is shown as an earning at the time the liability is incurred rather than at the time the debt is paid. The discount on vouchers not due and not paid must be treated, at the end of a fiscal period, as income collected in advance, since purchase discount is not earned until payment is made.

Voucher Register with Debit Distribution Control Account Columns

If an enterprise has a great many expense accounts, it may be inadvisable to expand the voucher register to provide a column for each expense. A voucher register with a great many columns is unwieldy and wasteful of time in recording. In such a situation the size of the voucher register may actually be reduced, if additional subsidiary ledgers are provided for raw materials

and the several classes of expense accounts, such as manufacturing, selling, and general and administrative.

(Left Page) VOUCHER REGISTER Month of ______19__

Date	Payee	Voucher No.	Paid		Credit	Debit	
			Date	Check No.	Vouchers Payable	Raw Materials	Mfg. Expenses

VOUCHER REGISTER (Right Page)

Debit				
Selling Expenses	Gen'l. and Adm. Expenses	Sundries		
		Amount	F	Account

In the voucher register just illustrated, the debit distribution accounts—Raw Materials, Manufacturing Expenses, Selling Expenses, and General and Administrative Expenses—represent controlling accounts each of which is supported by a subsidiary ledger. The raw materials subsidiary ledger, for example, contains accounts with the different sizes and kinds of materials used by the enterprise; the manufacturing expense subsidiary ledger contains accounts such as Light, Heat and Power, Indirect Labor, Factory Supplies, and Insurance.

Charges to Direct Labor account are made in the Sundries section as are charges to all other accounts not represented by a column heading. The debits to accounts in the subsidiary ledgers are made from the vouchers. The controlling accounts Raw Materials, Manufacturing Expenses, Selling Expenses, and General and Administrative Expenses are debited for the totals of their respective columns at the end of the month, when Vouchers Payable is credited with the total of its column.

Voucher Register with Sundry Debit and Credit Columns

Some voucher registers are prepared with a credit as well as a debit column in the sundries section. The purpose of the new credit column is to provide a place in the voucher register to record a transaction such as a purchase return or an allowance on purchases, after the voucher is prepared and recorded. The new credit column makes possible the recording of a purchase return or allowance without resorting to the red-ink inserts previously illustrated.

Sundry Debit and Credit Columns in Voucher Register Illustrated

VOUCHER REGISTER Month of July, 19__

Voucher No.	Paid		Credit	Debit	Sundry Debits and Credits					
	Date	Check No.	Vouchers Payable	Purchases Raw Mat'ls.	Account	F	Amount Debit	Account	F	Amount Credit
7-03	7-11	V7-03	480 00	480 00						
7-06			430 00		Vouchers Pay.		480 00	Pur. Raw Mat'ls		50 00

Columns not needed to illustrate the use of the sundry debit and credit columns were omitted in the voucher register illustrated above. The entries are for two of the transactions shown in the voucher register on page 475. The record on the first line above shows that voucher 7-03 was issued for the purchase of $480.00 worth of raw materials, but that the voucher was canceled and voucher 7-06 was issued. The second record, voucher 7-06, shows that purchases in the amount of $50.00 were returned or an allowance was obtained in that amount. The credit memorandum is attached to voucher 7-06. For the purpose of illustration, the above voucher register records are expressed in the form of general journal entries as follows:

Purchases Raw Materials	480.00	
Vouchers Payable		480.00
Vouchers Payable	480.00	
Vouchers Payable		430.00
Purchases Raw Materials		50.00

An enterprise which uses a voucher register with both debit and credit columns under sundries might record a purchase return or an allowance by the red-ink insert method, if the return or allowance came in the month the voucher was recorded and before it was paid. If the credit did not come until after the month in which the original voucher was recorded, the credit would be recorded as illustrated on page 480. An enterprise which prepares its checks at the same time the voucher is prepared would also record the credit as illustrated on the previous page.

The several different illustrations which have been given of the voucher register are sufficient to indicate that such a record should be designed to meet the needs of a particular enterprise. The forms in use vary from business to business.

Advantages of the Voucher System

The voucher system is not suggested as an accounting plan for all business enterprises. Its use is not necessary in a small enterprise, particularly one with a high degree of proprietary supervision and control. It may be a cumbrous plan to a large enterprise, especially if the enterprise is not well organized nor in a financial condition to permit the operation of the system as planned. If an enterprise which uses the voucher system runs short of cash and cannot pay its approved vouchers according to schedule, it may develop an unwieldy file of approved, unpaid vouchers. In addition, an enterprise may find the system hinders rather than helps, if it has many returns and allowances or other corrections after purchase invoices are approved and recorded, if it has to issue many notes to defer payments, or if it has to make many partial payments on approved vouchers.

To an enterprise equipped with the personnel and finances to operate the system successfully, it offers certain very decided advantages, some of which are

1. It provides a systematic plan for the verification and approval of all invoices, bills, and other items requiring the disbursement of cash. Cash disbursements are safeguarded thereby.
2. It provides for the recording in one journal (voucher register), at the time of incurrence, of all approved items

which require the immediate disbursement of cash or the assumption of current liabilities except those for notes and accruals payable.

3. It provides for the immediate recording of all current liabilities. It is a common practice for enterprises which do not use the voucher system to fail to record bills for such items as services and repairs until such time as they are paid. It is desirable to show all liabilities on the records from the time incurred.
4. It indicates current liabilities to creditors, other than those on notes payable and accruals payable, as a file of approved vouchers for particular invoices or bills and not as accounts with credit balances in a creditors' subsidiary ledger. The system, therefore, facilitates the payment of specific invoices and bills, a plan which is much more satisfactory to both the debtor and the creditor than a plan under which frequent part payments on account may be made.
5. Voucher checks may be provided in a form to act as receipts for specific payments.
6. Bookkeeping is reduced by the elimination of the creditors' subsidiary ledger.
7. The cash disbursements journal is reduced to a mere check register because the distribution of the charges for each disbursement are made in the voucher register.
8. The placing of responsibility for verifications and approvals strengthens the system of internal check.
9. The payment of invoices and bills within the discount period is facilitated. Approved vouchers are placed in a tickler file under the last date they may be paid to save the discount. Vouchers to be paid each day are noticed by a daily reference to the file for that purpose.

The Journal Voucher

In addition to the voucher system, many large enterprises use vouchers for general journal entries.

Entries in the general journal record transactions such as the receipt of notes from customers and the issuance of notes to creditors when note journals are not used, corrections of other entries, and adjusting and closing entries. General journal entries

should be approved by the proper accounting officer and should be explained adequately before they are entered in the general journal. The use of vouchers makes easier the approval and explanation of the entries.

Journal Voucher Illustrated

WILSON WIRE WORKS No. 349

JOURNAL VOUCHER Date June 10, 19__

Vouchers Payable	600 00	
Notes Payable		600 00
To cancel voucher 5-07 and to record the issuance of a 30-day 6 per cent note dated today to the Acme Machinery Co.		

L. Little	R. Price	E. Dudley
Prepared By	Approved By	Entered By

Since a journal voucher contains a full explanation of the entry, the explanation may be omitted from the journal. In the general journal only the date, journal voucher number, and the debit and credit accounts and amounts will be shown.

Very often the postings are made directly from the voucher to the accounts debited and credited and the voucher is entered in the general journal only for summary control account posting purposes.

Concluding Comments

The voucher system is not usually an easy subject for students to understand. The use of the voucher register as a combined original entry book and ledger constitutes a very radical departure from the accounting methods previously studied. The methods of recording exceptional transactions, such as the issuance of a note for a voucher, the purchase return or allowance,

or the partial payment of a voucher, make the system seem even more radical in its variation from the more generally known accounting procedure. It is suggested that the general plan of operating the system be studied and understood before an intensive examination is made of the methods of recording exceptional transactions.

QUESTIONS

1. *a.* Is the voucher system more than a system of recording? What is it?
   b. Under the voucher system when does the accounting department record a purchase invoice? A bill for services rendered to the enterprise? A payroll sheet?
   c. How does the treasurer know whether or not to pay such items as are referred to in *b*?
2. *a.* What is a voucher payable? Where is it prepared? When is it prepared? What is done with it after it is made out?
   b. Is a voucher prepared for a purchase which is to be paid immediately?
3. What kind of account is Vouchers Payable? Where is it kept? What does it control?
4. *a.* How does the clerk who enters a voucher in the voucher register know what accounts to debit for it?
   b. Why is not the credit on each voucher indicated clearly as such?
5. *a.* Under the voucher system how does a business know whom it owes, if a subsidiary ledger for creditors is not kept?
   b. Suppose it desired to keep a record of the purchases from each creditor, could it be done? How?
6. To what extent does a voucher system increase work? Decrease work?
7. "All vouchers are recorded in the voucher register." Do you agree?
8. What two checks are there on the balance of the Vouchers Payable controlling account?
9. What differences have you noted between the voucher register and the columnar purchase journal, with reference particularly to the transactions recorded, additional information shown, and the postings to be made?
10. The Morris Equipment Company operates a subsidiary ledger for creditors. A voucher system has been approved by the President but has not been installed. What changes are necessary?
11. *a.* What are the debits and credits from the check register?
    b. Why is it not necessary to provide a column in the check register for the general ledger?

12. *a.* Describe a plan for filing unpaid vouchers.
b. Describe a plan for filing paid vouchers.

13. In what respect does a voucher check differ from any other check?

14. *a.* Explain the method of recording a purchase invoice for which a note is given. Explain also the method of recording the payment of the note.
b. Explain the method of recording the issuance of a note to a creditor to satisfy an open account.

15. Suppose a voucher cannot be paid in full and a partial payment is made. Explain how this situation is handled and recorded.

16. *a.* Suppose you ordered 15,000 shipping boxes. A purchase invoice for that number was received but only 14,000 boxes were delivered.
(1) How would the accounting department know that only 14,000 boxes were delivered?
(2) Would the invoice be entered at its face or a corrected amount?
(3) What kind of document would you expect to receive from the box manufacturer, if the additional 1,000 boxes are not to be shipped?
b. Suppose the purchase invoice referred to above had been entered at its face amount, by error, before the credit memo from the manufacturer was received.
(1) Give two methods of correcting.
(2) Which method do you favor? Why?
c. Suppose the credit memo was not received and the error in recording the purchase invoice was not noticed until the month following the preparation and recording of the voucher but prior to the payment of it.
(1) How could this situation be handled?
(2) Why must the method suggested for *c*(1) be different from the methods suggested for *b*(1)?

17. In examining a voucher register you notice two sets of red-ink figures for the same amount, one set in the credit vouchers payable column and the other set in one of the debit columns.
a. What is the significance of the red-ink figures?
b. Are the end of the month totals of the columns in which the red-ink figures appear the sum of all the figures which appear in those columns? Explain.

18. Set up a Vouchers Payable account and show therein the sources of the debits and credits to it.

19. *a.* Do you believe it possible to design a voucher register in which purchase returns and allowances might be entered without the

use of red-ink inserts or without the use of a general journal entry? Explain.

20. *a.* Can you think of any enterprises in which the use of the voucher system would not be advantageous?

b. May a business which uses the voucher system have any current liabilities other than vouchers payable? If so, what?

c. Which is the better business practice for a debtor, to make partial payments on account of amounts owed or to pay specific invoices? Why? Which plan does the voucher system facilitate?

d. What do you mean by a system of internal check? Illustrate from the operation of the voucher system.

21. *a.* Why would a business use journal vouchers?

b. May the debits and credits be posted from the journal vouchers to the ledgers?

c. If your answer to *b* is yes, would the business have any need for a general journal? If so, why?

CHAPTER XXX

ANALYSIS AND INTERPRETATION OF FINANCIAL STATEMENTS

The definition of accounting given in Chapter I included three distinct functions—to record, to present, and to interpret the financial facts of an enterprise. Until now this book has been concerned, primarily, with the first two functions. Financial facts must be recorded and presented before they can be interpreted.

The full significance of an accounting statement may not be apparent to those persons for whom it has been prepared; it may need to be explained. It is the responsibility of the chief accounting officer to explain the accounting statements to the general officers and departmental executives of the company.

The controller of a company is the executive in charge of accounting; it is his responsibility to see that an adequate accounting system is provided and operated, that statements and reports are prepared promptly and that these statements and interpretations of them are presented to the other executives in a manner which will facilitate their maximum utilization. Decisions with respect to future sales, production, finance, and other departmental policies are made by the executives in charge of those departments and the general management, but these decisions should be made with a full knowledge of the financial facts of the past as accumulated, presented, and interpreted by the accounting department.

Objectives of Statement Analysis and Interpretation

In general, statement analysis and interpretation are made to determine

1. If the financial condition of the enterprise, as indicated by its balance sheet is sound and if the relationship between the various balance sheet groups is satisfactory, *i.e.*, that the relationships of current assets to current liabilities,

fixed assets to fixed liabilities, fixed assets to proprietorship, fixed liabilities to proprietorship, and other such relationships, are in proper proportion and indicate a healthy condition.

2. If the enterprise, as indicated by its statement of profit and loss is operating with satisfactory results and that the relationships between certain operating figures and certain balance sheet figures indicate satisfactory conditions.
3. If the financial facts and operating figures, as indicated respectively by the balance sheets and profit and loss statements for a number of periods, indicate any directions in which the enterprise seems pointed—any trends.

The information disclosed by analysis and interpretation is desired by the management of an enterprise as a means of better control and direction; it is desired by outsiders usually for credit and investment purposes.

Analysis and Interpretation by the Accounting Department

As has been explained previously, the analysis and interpretation of accounting statements for the use of the management of an enterprise are a definite responsibility of the accounting department. Naturally such an analysis and interpretation are much more detailed than an analysis and interpretation which may be published in the annual report of an enterprise. An internal analysis and interpretation are more exact and comprehensive than an analysis and interpretation made by an outsider, because all statements of prior years are available as well as the detailed facts shown in the accounts on the books. In addition, existing conditions may be compared with predetermined standards, such as budget figures when used. Variations from predetermined standards should not merely be pointed out but should be investigated as to their cause.

Analysis and Interpretation by an Outsider

An analysis and interpretation, made from the published statements of an enterprise by someone not employed or engaged by it, are usually for credit or investment purposes. Such an analysis and interpretation are limited because the published statements usually are in condensed form and there is no oppor-

tunity to supplement them by reference to the ledger accounts. A considerable amount of valuable information may be obtained, however, by a careful examination of the balance sheet of an enterprise, more may be obtained by an examination of both the balance sheet and the profit and loss statement, and much additional information may be obtained by a study of both statements for a number of prior years.

Persons Interested in Analysis and Interpretation of Financial Statements

1. *Managers.* Accounting is an indispensable aid to management. Through the analysis and interpretation of the financial statements the financial facts of the past and present are revealed more clearly, the results of operations are disclosed in greater detail, and data supplied on which, in part, future policies may be determined.

2. *Owners.* In a small business enterprise the owners may be the managers; in a large corporate enterprise that situation is not likely. Analysis and interpretation of the financial statements afford stockholders a better measure of the accomplishment of the managers of the enterprise, particularly with respect to dividend possibilities and the enhancement in the value of their stock in the future.

3. *Creditors.* The short-term creditor will not make a loan to or sell goods on credit to a business which may not be in a sufficiently liquid position to settle the claim at maturity. The credit departments of banks and business houses maintain files of the statements of their debtors and make their own analyses and interpretations.

Long-term creditors may be protected by the pledge of particular assets, nevertheless they are very much interested in the analyses and interpretations of the financial statements of the companies whose bonds they hold. If they see financial difficulties ahead for the debtor corporation they may wish to sell their bonds in the market.

4. *Prospective Investors.* A person contemplating an investment in a particular enterprise is very much interested in its past and present financial condition and the trend of its operating profit or loss as exhibited by its statements over a number of periods.

5. *Government Officials.* Analysis and interpretation of the financial statements of an enterprise may have to be made in connection with the various city, county, state, and federal taxes to which the business may be subject, also for filing reports with various state and national commissions which require such data.

6. *Employees.* Some employees are interested in their companies as stockholders. They are interested also from the standpoint of the future development of the companies, the possibilities for which may be indicated by the information disclosed by the analysis and interpretation of the statements.

7. *Citizens.* The ordinary citizen is interested in an analysis and interpretation of the financial statements of some companies, such as his bank, telephone, water, gas, and electric companies. The analysis of his bank statements helps him to determine its solvency and safety, the analyses of the statements of the utility companies indicate the possibilities of rate reductions or increases. Similarly the ordinary citizen should be interested in analyses of the statements of his governmental units since he contributes to their support as a taxpayer.

Analysis and Interpretation Methods

Some of the fundamental methods of analyzing and interpreting financial statements are

1. To set up a balance sheet with per cent as well as dollar and cent columns. The per cent columns alongside the assets indicate the percentage relationship of each group of assets to the total assets, as well as the relationship of each asset to the total of its group. In the liability and proprietorship sections the per cent columns indicate the relationship of each liability and each item of proprietorship to its group and of each group to the total liabilities and proprietorship.
2. To set up a profit and loss statement with a per cent as well as dollar and cent columns. Net sales is considered 100 per cent and each item and each group of items are expressed as a percentage of net sales.
3. To indicate the relationship of any one asset or group of assets, of any one liability or group of liabilities, of any

one net worth item or group of items to any other item or group of items on the balance sheet. Thus the relationship of land and buildings to first mortgage bonds payable may be indicated or the relationship of the current assets to the current liabilities.

4. To show the relationship of any item or group of items on the profit and loss statement to any other item or group of items on the same statement, *i.e.*, the relationship of selling expenses to net sales or general and administrative expenses to net sales.
5. To indicate the relationship of any item or group of items on the balance sheet to any item or group of items on the statement of profit and loss, *i.e.*, the relationship of net profit for the period to capital stock.
6. To prepare a comparative balance sheet to indicate the increases and decreases in individual items which have taken place over the period.
7. To prepare a comparative statement of profit and loss to indicate the increases and decreases of the current year from the preceding year.
8. To ascertain results and conditions over a period of years from a study of balance sheets and profit and loss statements and to develop therefrom indications of trends.

Ratios

The relationship of one item to another is usually expressed as a ratio. Thus, if current assets are $600,000.00 and current liabilities are $200,000.00, the relationship is expressed as 3 to 1 (3:1). Sometimes a relationship is expressed as a per cent. The relation of the current assets to the current liabilities for the figures just given is stated as 300 per cent.

Analysis and Interpretation of a Balance Sheet

The inclusion of the per cent columns in the balance sheet on page 492 facilitates the comparison of items on the statement. For example, it might not be evident from looking at the amounts alone that the Reserve for Bad Debts is less than one per cent of the amount of Accounts Receivable or that the Reserve for Depreciation of Buildings is 8.33 per cent of the amount in the Buildings account. Both of these reserve accounts seem small.

THE STAR STORES COMPANY

Balance Sheet, December 31, 19A

Assets

		Per Cent		Per Cent		Per Cent
Current Assets:						
Cash			$ 50,000.00	8.33		
Accounts Receivable	$202,000.00	100.00				
Less: Reserve for Bad Debts	2,000.00	.99				
		99.01	200,000.00	33.34		
Notes Receivable			50,000.00	8 33		
Inventory of Merchandise			300,000 00	50.00		
Total Current Assets				100 00	$ 600,000.00	42.8
Deferred Assets:						
Prepaid Insurance					1,000.00	00.1
Fixed Assets:						
Land			$200,000.00	25.00		
Buildings	$600,000.00	100.00				
Less: Reserve for Depreciation	50,000.00	8.33				
		91.67	550,000.00	68.75		
Store Furniture and Fixtures	$ 50,000.00	100.00				
Less: Reserve for Depreciation	15,000.00	30.00				
		70 00	35,000.00	4.375		
Office Furniture and Fixtures	$ 20,000.00	100.00				
Less: Reserve for Depreciation	5,000 00	25 00				
		75 00	15,000 00	1.875		
Total Fixed Assets				100 00	800,000.00	57.1
Total Assets					$1,401,000.00	100 00

Liabilities

		Per Cent		Per Cent
Current Liabilities:				
Accounts Payable	$178,000.00	68.46		
Notes Payable	80,000.00	30.77		
Accrued Payroll	2,000.00	.77		
Total Current Liabilities		100 00	$ 260,000.00	18.56
Fixed Liabilities:				
First Mortgage 6 per cent Bonds Payable			200,000.00	14.27
Proprietorship				
Capital Stock (7,500 shares par $100.00)	$750,000 00			
Surplus	191,000 00			
Total Proprietorship			941,000.00	67.17
Total Liabilities and Proprietorship			$1,401,000.00	100.00

If the company is not providing reserves on conservative bases then the balance sheet represents an overstatement of values and the profit and loss statement represents overstated profits.

It will be noticed from The Star Stores Company balance sheet that Cash represents 8.33 per cent of the current assets

and that Inventory of Merchandise is 50 per cent. Current assets are 42.8 per cent of all assets, deferred assets only .1 per cent and fixed assets 57.1 per cent. The amount of Notes Receivable seems high. That item represents 8.33 per cent of the current assets, the same proportion as Cash. If Notes Receivable are high because notes have been taken from delinquent customers, then it would seem the company has not valued this item conservatively. On the other hand, if it is the usual practice for this company to take notes from customers, then no particular significance attaches to the item.

The asset Accounts Receivable may be analyzed and shown in a schedule to indicate the amount not yet due, the amount not over 30 days past due, the amount over 30 days past due but not over 60 days, and the amount more than 60 days past due.

Notes Payable seem high; they represent 30.77 per cent of the current liabilities. If the issuance of notes by the company reflects a failure to pay bills within the discount period, it is a warning signal with respect to the company's liquid position.

The fixed liability First Mortgage Bonds Payable is secured by a lien on the Land and Buildings. The bondholders have ample protection as long as the company maintains a strong liquid position so that it can pay interest as it falls due. Unfortunately the balance sheet does not indicate, as it should, the due date of the bonds. It will be noticed that the company is making no provision for their retirement; there is no reserve for bond retirement account nor is there a sinking fund. If these bonds mature within a few years, the company evidently will have to refund them.

Ratio of Fixed Assets to Fixed Liabilities. The relationship of fixed assets to fixed liabilities is $800,000.00 to $200,000.00 or 4 to 1 (4:1), a satisfactory condition. Funds obtained from fixed liabilities are used usually for the acquisition of fixed assets and in this instance it is evident that $600,000.00 of proprietary capital was used for fixed assets.

Ratio of Proprietorship to Fixed Liabilities. The relationship of net worth to fixed liabilities is $941,000.00 to $200,000.00 or 4.705 to 1. Fixed liabilities mean interest payments, a fixed charge even in bad years. Interest on fixed liabilities may cause a serious drain on a company's cash in periods of poor

business. During bad times particularly dividends need not be paid on capital stock.

Ratio of Proprietorship to Total Liabilities and Proprietorship. The relationship of Proprietorship to Total Liabilities and Proprietorship is brought out clearly by the per cent column in the statement. Proprietorship interest in the company represents 67.17 per cent of the Total Liabilities and Proprietorship. From the standpoint of a creditor this percentage means that in the event of liquidation losses in asset values to an amount of 67.17 per cent could take place before creditors would lose anything. In the case of The Star Stores Company, however, not all creditors would rank alike, since the bondholders have first claim on the land and buildings.

Ratio of Proprietorship to Fixed Assets. The ratio of proprietorship to fixed assets is $941,000.00 to $800,000.00 or 1.18 to 1. This ratio indicates that the owners either by original investments or the retention of profits in the business, in this instance by both methods, have contributed more than enough to acquire all the fixed assets.

Current Ratio. A current ratio is the expression of the relationship between the current assets and the current liabilities of an enterprise. It is a test used to determine the ability of an enterprise to liquidate its current indebtedness and to finance operations in the immediate future. Because of its long-continued use by bankers and other creditors, the current ratio is the best known of all ratios used in statement analysis. It is stated, very often, that a current ratio should be 2 to 1. This statement cannot be accepted as a general rule although it may serve as a general guide. The proper ratio in a particular case depends largely on the special circumstances which apply to the company at the time.

The current ratio for The Star Stores Company is $600,000.00 to $260,000.00 or 2.31 to 1 or just 2.31. Expressed as a percentage the relationship is 231 per cent. The figures on which this ratio is based seem to indicate that current assets are sufficient to liquidate current debt and leave $340,000.00 as *working capital* for future needs. The ratio indicates there are $2.31 of current assets available to meet every $1.00 of current indebtedness. Actually the current condition of The Star Stores Company does not appear so satisfactory as the current ratio

indicates. The company has but $50,000.00 of Cash on hand. If the immediate future proves to be a period of slow collections and poor business, so that Accounts and Notes Receivable are not collected promptly and Inventory of Merchandise is not turned into cash quickly, the company might find itself embarrassed by a shortage of cash. Before that condition developed, the company could endeavor to borrow at bank, either on its own note or by discounting customer notes.

The illustration of the previous paragraph not only shows the significance of the current ratio but the importance of proper proportions within the current asset group.

Working capital is the excess of the current assets over the current liabilities; it does not change if both current assets and current liabilities increase or decrease in like amount, but the current ratio changes. If The Star Stores Company paid off $40,000.00 of accounts payable, working capital would remain at the figure $340,000.00 but the current ratio would change to $560,000.00 to $220,000.00 or 2.55 to 1. The new current ratio is an improvement over the previous ratio of 2.31 but the actual financial condition of the company would probably be weakened by this payment.

Acid Test Ratio. The acid test ratio is the expression of the relationship of cash, receivables, and marketable securities, if any, to the current liabilities. The title of this ratio comes, obviously, from the severity of the contrast. From the standpoint of creditors, the higher this ratio, the more secure they feel. Ordinarily a ratio of 1 to 1 is considered satisfactory. In the case of The Star Stores Company the ratio is $300,000.00 to $260,000.00 or 1.15 to 1. The ratio of 1.15 to 1 is satisfactory ordinarily but in this instance is subject to the same comments made about the current ratio, the relatively small amount of cash.

Ratio of Intangibles to Surplus. The Star Stores Company does not have any intangible assets such as goodwill, patents, and trade-marks; if it had, the amount of such assets should be compared with the amount of surplus. Because the intangible assets may include the cost of some item of doubtful value, the businessman is likely to look askance at this asset. In addition, many leading enterprises have followed the practice of reducing the amount of an intangible such as goodwill from time to time

by charges to Surplus. In his endeavor to determine sound values and relationships, the analyst outside the company is likely to compare intangibles with surplus and to note especially if any surplus would remain, if all the intangibles were written off.

It would be possible to prepare many more ratios from the balance sheet of The Star Stores Company. Those given are merely illustrative. The use of ratios is most helpful when those of a particular company can be compared with standard ratios prepared from the balance sheets of a number of companies in the same industry. Such standard ratios are available in some industries as the result of the investigations of trade associations and other organizations. When standard ratios are available and are used for comparative purposes, variations between them and those of a particular enterprise must be considered with a full knowledge of the special circumstances which apply to the particular enterprise.

Analysis and Interpretation of a Statement of Profit and Loss

The inclusion of per cent columns in the statement of profit and loss on page 497 facilitates comparison of items on the statement. All percentages are based on Net Sales as 100 per cent. It will be noticed that Cost of Goods Sold represents 75 per cent and Gross Profit on Sales 25 per cent of Net Sales. Stating these facts in another way 75 cents of the average sales dollar represents cost and 25 cents the gross profit out of which the various expenses are met.

Net Profit on Sales $133,000.00 is 8.75 per cent of Net Sales. Reduced to terms of an average $1.00 sale, 8.75 cents is the net profit. From the net profit on sales percentage is deducted the percentage figure representing the excess of Other Expenses and Losses over Other Income to produce the figure 8.62, the percentage of Net Profit for the Period.

The per cent columns bring out much more clearly than the amount columns the relationship of each of the various expense accounts and each of the several expense classifications to Net Sales. For example, Delivery Expenses represents 1.32 per cent, Advertising 2.3 per cent, Store Salaries 7.04 per cent, Selling Expenses 12.96 per cent, Office Salaries 2.37 per cent, General

THE STAR STORES COMPANY
Statement of Profit and Loss
For the Year Ended December 31, 19A

						Per Cent
Sales			$1,550,400.00			102.00
Less: Sales Returns and Allowances			30,400.00			2.00
Net Sales					$1,520,000.00	100.00
Cost of Goods Sold:						
Inv. of Mdse., Jan. 1, 19A			$ 270,000.00			
Purchases			1,170,000.00			
			$1,440,000.00			
Inv. of Mdse., Dec. 31, 19A			300,000.00		1,140,000.00	75.00
Gross Profit on Sales					$ 380,000.00	25.00
Less:		Per Cent				
Selling Expenses:						
Advertising	$ 35,000.00	2.30				
Store Salaries	107,000.00	7.04				
Store Expenses	6,000.00	.39				
Delivery Expenses	20,000.00	1.32				
Insurance	3,000.00	.20				
Property Taxes	12,000.00	.79				
Dep. of Building	9,000.00	.59		Per Cent		
Dep. of Store Fur. and Fixt.	5,000.00	.33	$ 197,000.00	12.96		
General and Adm. Exp.:						
Office Expenses	$ 2,010.00	.13				
Office Salaries	36,000.00	2.37				
Insurance	1,000.00	.07				
Property Taxes	4,000.00	.26				
Bad Debts	1,990.00	.13				
Dep. of Building	3,000.00	.20				
Dep. of Office Fur. and Fixt.	2,000.00	.13	50,000.00	3.29	247,000.00	16.25
Net Profit on Sales					$ 133,000.00	8.75
Other Expenses and Losses:						
Interest Expense	$ 13,600.00	.89				
Sales Discounts	10,000.00	.66	$ 23,600.00	1.55		
Other Income:						
Interest Earned	$ 1,000.00	.07				
Purchase Discounts	20,600.00	1.35	21,600.00	1.42	2,000.00	.13
Net Profit for the Period					$ 131,000.00	8.62

and Administrative Expenses 3.29 per cent, and Interest Expense .89 per cent of Net Sales.

Merchandise Turnover. To determine the number of times the average inventory was converted into sales during the year, the Cost of Goods Sold figure is divided by the amount of the average inventory at cost. The average inventory is the average of the inventory at the beginning and the end of the year.

The average inventory of The Star Stores Company is $270,000.00 plus $300,000.00 divided by 2 or $285,000.00. The cost of goods sold is $1,140,000.00.

$$\frac{\$1,140,000.00}{\$285,000.00} = 4 \text{ the rate of merchandise turnover}$$

The Star Stores Company is a trading business. In a manufacturing business the turnover of finished goods is determined in the same manner by dividing the average inventory of finished goods into the cost of goods sold. The turnover of raw materials in a manufacturing business is found by dividing the average inventory of raw materials into the amount of raw materials used during the period.

The management of an enterprise aims to maintain the smallest inventory consistent with satisfactory sales volume. The higher the rate of turnover the lower the capital requirements to produce a given amount of net earnings.

The possibility of comparing many more items on the statement of profit and loss is apparent. The comparisons mentioned are illustrative. The interpretation of the percentages calculated for a particular statement of profit and loss is aided greatly when they can be compared with standard percentages calculated for a number of companies in the same industry.

Interstatement Percentages and Ratios

A number of significant percentages and ratios may be obtained by comparing items or groups of items on the balance sheet with items or groups of items on the statement of profit and loss. A few examples will be illustrated.

Number of Times Bond Interest Earned. The balance sheet shows that The Star Stores Company has $200,000.00 of 6 per cent bonds outstanding. The interest on these bonds amounts to $12,000.00 per year. The profit and loss statement shows the net profit for the period is $131,000.00. Since interest on the bonds was deducted as one of the Other Expenses, the net profit for the period exclusive of bond interest must have been $143,000.00; $12,000.00 divided into $143,000.00 gives 11.9, which is the number of times the company earned the amount of interest on its bonds during the past year. Knowledge of this very favorable fact is gratifying to the bondholders.

Percentage of Net Profits to Proprietorship at the Beginning of the Period. The proprietorship or net worth of The Star Stores Company is $941,000.00. If it is known that no dividends

were paid during the year, then the $941,000.00 proprietorship figure includes the $131,000.00 earned in the period. In the absence of any adjustments to surplus, proprietorship a year ago was $810,000.00; $131,000.00 is 16.17 per cent of $810,000.00.

Percentage of Net Profits to Capital Stock. The $131,000.00 net profit shown by the statement of profit and loss is 17.47 per cent of the $750,000.00 of capital stock shown in the balance sheet. Here again there is an assumption, that there were no changes in the Capital Stock account during the year.

Profit per Share of Capital Stock. The balance sheet shows The Star Stores Company has 7,500 shares of capital stock outstanding—7,500 divided into $131,000.00, the net profit for the period, gives $17.47 as the earnings of each share of capital stock in the last period. This same answer may be obtained by multiplying the par value of a share by the percentage of profit on capital stock.

Comparative Balance Sheets

The analysis and interpretation of the financial statements of an enterprise are aided greatly when each statement appears in comparative form. The statement of a single amount may carry very little meaning; only when compared with other amounts does its true significance become apparent. Some companies issue their statements in comparative form by presenting, usually, the figures for the period just ended in the first column, and the figures for the preceding period in the second column with a third column to indicate the amount of the increase or decrease in each item. Since increases and decreases are given usually in the one column, increases are indicated by the use of the plus (+) sign and decreases by the minus sign (−).

The comparative balance sheet of The Star Stores Company, particularly the column showing Increases or Decreases, indicates certain outstanding facts. A decrease of $150,000.00 in Cash is noticed immediately, as is a decrease of $100,000.00 in the Total Current Assets. The increases in each of the fixed assets, especially in the cases of Land and Buildings stand out because of the size of the amounts. The $312,000.00 increase in Total Fixed Assets and the $80,000.00 increase in Total Current Liabilities are other especially noticeable items.

THE STAR

COMPARATIVE BALANCE

Assets	19A	19B	Inc. or Dec.
Current Assets:			
Cash....................	$ 50,000.00	$ 200,000.00	−$150,000.00
Accounts Receivable (Net)	200,000.00	210,000.00	− 10,000.00
Notes Receivable........	50,000.00	20,000.00	+ 30,000.00
Inventory of Merchandise	300,000 00	270,000.00	+ 30,000.00
Total Current Assets...	$ 600,000.00	$ 700,000 00	−$100,000.00
Deferred Assets:			
Prepaid Insurance.......	$ 1,000.00	$ 2,000.00	−$ 1,000.00
Fixed Assets:			
Land....................	$ 200,000.00	$ 100,000.00	+$100,000.00
Buildings...............	$ 600,000.00	$ 380,000.00	+$220,000.00
Less: Reserve for Depreciation..........	50,000.00	38,000.00	+ 12,000.00
	$ 550,000.00	$ 342,000.00	+$208,000 00
Store Furniture and Fixtures...............	$ 50,000.00	$ 42,000.00	+$ 8,000.00
Less: Reserve for Depreciation..........	15,000.00	10.000.00	+ 5,000.00
	$ 35.000.00	$ 32,000.00	+$ 3.000.00
Office Furniture and Fixtures...............	$ 20.000.00	$ 17,000.00	+$ 3,000.00
Less: Reserve for Depreciation..........	5,000.00	3,000.00	+ 2,000.00
	$ 15,000.0C	$ 14,000 00	+$ 1,000 00
Total Fixed Assets.....	$ 800,000.00	$ 488,000.00	+$312.000.00
Total Assets..........	$1.401.000.00	$1,190.000.00	+$211.000 00

NOTE: The column headed 19A presents the figures as at the end of the year just closed; the column headed 19B presents the figures for the preceding year.

A balance sheet comparison, such as the one here illustrated, shows net changes in an item between the end of one year and the same date one year later. It does not show the detailed changes for the item which have occurred during the year. For example, Buildings show a net increase of $220,000.00 from a year ago. This may mean that an additional building which cost $220,000.00 was acquired during the year or it may mean that a building which cost $250,000.00 was acquired and a building which cost $30,000.00 was sold. The fact that an

STORES COMPANY
SHEET, DECEMBER 31, 19A and 19B

Liabilities	19A	19B	Inc. or Dec.
Current Liabilities:			
Accounts Payable........	$ 178,000.00	$ 169,000.00	+$ 9,000.00
Notes Payable	80,000.00	10,000.00	+ 70,000.00
Accrued Payroll..........	2,000.00	1,000.00	+ 1,000.00
Total Current Liabilities................	$ 260,000.00	$ 180,000.00	+$ 80,000.00
Fixed Liabilities:			
First Mortgage 6 per cent Bonds Payable......	$ 200,000.00	$ 200,000.00	
Total Liabilities.......	$ 460,000.00	$ 380,000.00	+$ 80,000.00
Proprietorship			
Capital Stock..............	$ 750,000 00	$ 750,000 00	
Surplus End of Previous Year..................	$ 60,000.00	$ 15,000.00	+$ 45,000.00
Net Profit for the Year..	131,000.00	120,000.00	+ 11,000.00
Total.................	$ 191,000.00	$ 135,000.00	+$ 56,000.00
Dividends Paid..........		75,000.00	− 75,000 00
Surplus End of Year.......	$ 191,000.00	$ 60,000.00	+$131,000.00
Total Proprietorship...	$ 941,000.00	$ 810,000.00	+$131,000.00
Total Liabilities and Proprietorship......	$1,401,000.00	$1,190,000 00	+$211,000.00

item has increased between statements shows that the increases have exceeded the decreases.

A comparison of the current ratio for the two years is important. As previously determined, for the year just ended the ratio is 2.31 to 1. A year ago the current ratio was $700,000.00 to $180,000.00 or 3.89 to 1. It is noticed that the change was brought about by a decrease in current assets and an increase in current liabilities. Of great importance is the fact that the greatest change in current assets and liabilities was a decrease of $150,000.00 in cash which left that item with the relatively small balance for this company of $50,000.00.

As previously calculated, the ratio of fixed assets to fixed liabilities at the end of the year just ended is 4 to 1. A year before the ratio was $488,000.00 to $200,000.00 or 2.44 to 1. Similar comparisons may be made between the ratios at the end of the year just closed and the end of the previous year for all the balance sheet ratios considered previously in this chapter.

The few facts just noted about the comparative balance sheet of The Star Stores Company are sufficient to indicate that working capital has been materially reduced ($180,000.00) in the course of the last year for the acquisition of additional fixed assets, a dangerous practice unless the current ratio is an extremely favorable one. Additional Land, Buildings, Store Furniture and Fixtures, and Office Furniture and Fixtures were acquired during the past year. The management of the company was aware apparently of the severe reduction in working capital because it will be noticed that no dividends were paid this past year in contrast to $75,000.00 paid the previous year.

An examination of the changes in the items which constitute the current assets and the current liabilities reveals some additional changes of an unsatisfactory character. The increase of $30,000.00 in Notes Receivable may indicate the conversion of slow Accounts Receivable into Notes Receivable. Accounts Payable show an increase of $9,000.00 but particularly noticeable is the $70,000.00 increase in Notes Payable. Evidently this latter increase is an evidence of difficulty in meeting obligations and the conversion of Accounts Payable into Notes Payable or it may mean that the company has been forced to borrow on its own notes. The increase of $30,000.00 in Inventory of Merchandise is not especially significant. It may represent additional stock needed for the new store or stores or it may indicate the preparation of the management for an upward movement in sales volume.

Comparative Profit and Loss Statements

All changes shown by the comparative statement of profit and loss (page 503) are increases with one exception, Bad Debts. Increase and decrease columns indicate some very significant changes, *i.e.*, Net Sales increased 46.15 per cent but Cost of Goods Sold increased at a higher rate 50.16 per cent. The proportionate increase in the relation of Cost of Goods Sold to

THE STAR STORES COMPANY
Comparative Statement of Profit and Loss
For the Twelve Months Ended December 31, 19A and 19B

	19A		19B		Increase or Decrease	
	Amount	Per Cent of Net Sales	Amount	Per Cent of Net Sales	Amount	Per Cent
Sales	$1,550,400 00	102 00	$1,055,600 00	101 50	+$494,800 00	+ 46 87
Less: Sales Ret. and Allow.	30,400 00	2 00	15,600 00	1 50	+ 14,800 00	+ 94 87
Net Sales	$1,520,000 00	100 00	$1,040,000 00	100 00	+$480,000 00	+ 46 15
Costs of Goods Sold:						
Inv. of Mdse., Jan. 1, 19__	$ 270,000 00		$ 250,000 00		+$ 20,000 00	+ 8 00
Purchases	1,170,000 00		779,200 00		+ 390,800 00	+ 50 15
	$1,440,000.00		$1,029,200.00		+$410,800.00	+ 39.91
Inv. of Mdse., Dec. 31, 19__	300,000.00		270,000.00		+ 30,000.00	+ 11.11
Cost of Goods Sold	$1,140,000.00	75.00	$ 759,200 00	73 00	+ $380,800 00	+ 50 16
Gross Profit on Sales	$ 380,000 00	25 00	$ 280,800 00	27 00	+$ 99,200 00	+ 35 33
Selling Expenses:						
Advertising	$ 35,000 00	2 30	$ 12,000 00	1 15	+ $ 23,000 00	+191 67
Store Salaries	107,000 00	7 04	71,300 00	6 86	+ 35,700 00	+ 50 07
Store Expenses	6,000 00	39	3,000 00	.29	+ 3,000 00	+100 00
Delivery Expenses	20,000 00	1 32	15,000 00	1 44	+ 5,000 00	+ 33 33
Insurance	3,000 00	20	2,100 00	.20	+ 900 00	+ 42 86
Property Taxes	12,000 00	79	7,200 00	69	+ 4,800 00	+ 66 67
Dep. of Buildings	9 000 00	.59	5,700 00	55	+ 3,300 00	+ 57 89
Dep. of Store F. and F	5,000 00	.33	4,200 00	.40	+ 800 00	+ 19 05
Total Selling Expenses	$ 197,000 00	12 96	$ 120,500 00	11 58	+ $ 76,500 00	+ 63 49
General and Administrative Expenses:						
Office Expenses	$ 2,010 00	13	$ 1,300 00	13	+ $ 710 00	+ 54 62
Office Salaries	36,000 00	2 37	25,000 00	2 40	+ 11,000 00	+ 44 00
Insurance	1,000 00	.07	700 00	07	+ 300 00	+ 42 86
Property Taxes	4,000 00	.26	2,400 00	.23	+ 1,600 00	+ 66 67
Bad Debts	1,990 00	13	2,100 00	20	− 110 00	− 5 24
Dep. of Buildings	3,000 00	.20	1,900 00	.18	+ 1,100 00	+ 57 89
Dep. of Office F. and F	2,000 00	.13	1,700 00	17	+ 300 00	+ 17 65
Total Gen'l. and Adm. Exp.	$ 50,000 00	3 29	$ 35,100 00	3 38	+$ 14,900 00	+ 42 45
Net Profit on Sales	$ 133,000 00	8 75	$ 125,200 00	12 04	+$ 7,800 00	+ 6 23
Other Expenses and Losses:						
Interest Expense	$ 13,600.00	.89	$ 12,800 00	1 23	+$ 800 00	+ 6 25
Sales Discounts	10,000 00	66	8,400 00	.81	+ 1,600 00	+ 19 05
Other Income:						
Interest Earned	$ 1,000.00	.07	$ 400 00	.04	+$ 600 00	+150 00
Purchase Discounts	20,600.00	1 35	15,600 00	1 50	+ 5,000 00	+ 32 05
Net Profit for Period	$ 131,000 00	8 62	$ 120,000 00	11 54	+$ 11,000 00	+ 9 17

Note: The year 19A refers to the year just closed; the year 19B refers to the preceding year.

Net Sales during the last year is somewhat surprising in view of the large increase in volume. Either purchases were not made at as low a cost as in the previous year or they were not marked up for sale purposes at the same rate. Another possible explanation is the possibility that the last Inventory of Merchandise includes merchandise valued at a low replacement cost. The probabilities are the merchandise sold in the new store or stores did not carry the same relative mark-up as goods sold in the previous year.

Because of the relatively higher Cost of Goods Sold in the last year as compared with the year before, the Gross Profit on Sales percentage declined from 27 per cent to 25 per cent. The decline in the Gross Profit on Sales percentage for the two-year periods may be noted also in the increase and decrease percentage column when it is observed that Net Sales increased 46.15 per cent but Gross Profit on Sales increased only 35.33 per cent.

It will be noticed, also, that the Total Selling Expenses increased at a rate higher than the rate of increase in Net Sales. The rate of increase in the Total General and Administrative Expenses, on the other hand, was lower than the rate of increase in Net Sales. Evidently the general administrative and office force and the general office expenses needed less expansion by reason of the increased volume of business than did the sales staff and the sales expenses. Note the actual and relative increase in Advertising, Store Salaries, and Store Expenses. Delivery Expenses and Insurance, it will be noticed, increased at rates lower than the rate of increase in Net Sales.

The Net Profit on Sales last year was 6.23 per cent higher in amount than the year before, but it should be noticed that the rate of Net Profit on Sales to Net Sales declined from 12.04 per cent to 8.75 per cent. Similarly, it should be noted that while 9.17 per cent more profit was earned last year than the year before, the actual relationship of Net Profit for the Period to Net Sales declined from 11.54 per cent to 8.62 per cent.

As previously determined, the rate of merchandise turnover last year was 4, the rate for the previous year was 2.9. This is a very decided point in favor of the management. Merchandise has been converted into other assets more rapidly and the inventory has not been increased at nearly so high a rate as the increase in sales volume.

Since there was no change in capital stock or the number of shares outstanding between the dates of the statements under consideration and there was an increase in the amount of Net Profit in the last year, the rates indicating the percentage earned on capital stock and the earning rate per share of capital stock will show an increase. The number of times interest on bonds was earned, for the same reasons, is more favorable for the last year than for the preceding one. The percentage earned on proprietorship at the beginning of the period was calculated, earlier in this chapter, as 16.17 per cent. That rate is better than the rate of 15.69 per cent earned in the previous year, assuming there were no changes in capital stock in the period preceding the last one.

Summary of the Analysis and Interpretation of the Star Stores Company

A very brief summary of the findings from the analysis and interpretation of the Star Stores Company seems desirable. The management is to be commended on the increase in the volume of business done, on the acceleration in the rate of merchandise turnover, for increasing the annual net profit, and for its desire to increase its fixed assets without increasing the additional fixed liabilities with their attendant increase in fixed charges.

The management apparently is not making adequate provision for future bad debts and for the depreciation of its fixed assets. In trying to carry out its policies, the management of the company has taken one action which may have quite serious results. It has drawn on cash too heavily and immediate attention will be necessary apparently to the formulation of a plan to increase the cash balance. Since there was no increase in the fixed liabilities during the past year, the land and buildings acquired were free of encumbrances. It may be possible, therefore, to mortgage the new properties in order to build up cash and the working capital.

The Determination of Trends

If the statements of an enterprise for a number of periods are analyzed, it is possible to prepare figures to indicate the direction in which the activities of the enterprise are leading. The

possibility is enhanced, if statement analysis is supplemented by an account analysis. For example, if sales by products are listed for a period of years, the figures may indicate clearly the tendency of the volume of one product to decline and the tendency of the volume of another product to increase. The trend is not indicated, necessarily, by steady declines or increases but by a tendency to decline or increase over a period of years. Thus may be traced the tendency of a major product to become a lesser product or a by-product to become a major product. Similarly, figures for a number of years would indicate the trends with respect to sales in various geographical divisions, in various products and so on. Trends with respect to the rate of earnings on capital stock, the rate of earnings on total assets, trends with respect to the relative shares of manufacturing cost as among wages, materials, and indirect manufacturing expense, and so on, may be prepared and be very useful. A trend may be expressed by merely listing the figures for the number of periods considered. Because it is easier to follow a series of figures expressed as a line or curve on a chart or by means of a diagram or graph, the trend is much more likely to be appreciated, if the figures are so expressed.

The Use of Accounting Analyses and Interpretations

The question may be raised, what should be the policy of The Star Stores Company for the future? Should additional properties be acquired by purchase or lease? If purchased, should they be financed out of working capital? Do collections need immediate and special care? And so on. It is not the responsibility of the accountant to answer these questions. His advice, the same as that of other departmental executives, will be sought undoubtedly by the general management. Management has other sources of information in addition to the accounting department. It may have studies made of its purchasing methods, its sales policies, its financing methods, and of its personnel. It must make its decisions with due consideration to all the information which it has.

The general management of The Star Stores Company may or may not have been aware during the past two years of all the facts brought out by the analysis and interpretation just made. Under any circumstances it is desirable for the account-

ing department to make analyses currently and at the end of periods. The responsibility of the accounting department is to disclose facts. The proper use of these facts requires information greater than that disclosed by accounting alone. The accounting facts with respect to a given enterprise must be viewed in the light of the special circumstances applicable to that enterprise, with due consideration to the position of that enterprise in its industry, with adequate regard to the position of the industry as a whole, and with an appreciation of economic conditions generally and the prospects for the future. The profitable use of accounting data in formulating and carrying out policies requires a breadth of business experience, imagination, and courage.

Concluding Comments

In concluding this chapter, it is desirable to mention that no bases other than dollars and cents, ratios, and percentages have been considered. Comparisons on the basis of tons, pounds, barrels, gallons, or other quantity measures of product may be necessary also. An analysis on this basis may disclose the fact that the sales of an enterprise in terms of quantities increased between periods although the sales in terms of dollars decreased, or vice versa. It should be mentioned also, that no consideration has been given to the changing value of the dollar arising out of changes in the price level between periods.

QUESTIONS

1. The analysis and interpretation of the financial facts of an enterprise are desired for what general purposes by
   a. Outsiders?
   b. The executives of the enterprise?
2. In which section or sections of a balance sheet would you have a special interest, if you were a stockholder? A bondholder? A holder of a short-term note of the corporation? Why, in each instance?
3. *a.* Of what advantage is it to the executives of an enterprise to have per cent as well as dollar and cents columns in the balance sheet? In the statement of profit and loss?
   b. What is the advantage of a comparative balance sheet to the executives? To an outsider?

c. What is the advantage of a comparative statement of profit and loss to the executives? To an outsider?

4. What do you mean by a *ratio?* How may it be expressed?
5. As a credit officer in a bank from which a loan is being asked, in which ratios of the borrower's statements would you be interested especially? Explain why in each instance.
6. Why do you think it is desirable to show the percentage of each current asset to the total current assets? Of total current assets to total assets? Of each current liability to the total current liabilities? Of the total current liabilities to total liabilities and proprietorship?
7. *a.* What is working capital?
   b. What is a current ratio?
   c. What is meant by the expression "the acid test ratio"?
8. The X Company has a current ratio of 2 to 1, the Y Company 1 to 2, and the Z Company 1.6 to 1. Before you decide which of these companies is the best credit risk, what additional facts would you want to know?
9. The current ratio of a corporation is 2 to 1. Which of the following suggestions would improve, which would reduce, and which would not change the ratio?
   a. To borrow money on an interest-bearing note.
   b. To sell a fixed asset for cash at a slight loss.
   c. To give an interest-bearing note to a creditor to whom money was owed on open account.
   d. To pay a current liability.
   e. To purchase merchandise for cash.
10. An enterprise had two customers with credit balances of $2,500.00 each on its books. In presenting its balance sheet, the enterprise listed its accounts receivable as the amount due by all customers less the two $2,500.00 credit balances.
   a. Was the action correct?
   b. Did the action have any effect on the amount of the working capital?
   c. Did the action have any effect on the current ratio?
11. What is each of the following ratios supposed to indicate?
   a. Current ratio.
   b. Fixed assets to fixed liabilities.
   c. Proprietorship to fixed assets.
   d. Intangibles to surplus.
   e. Gross profit on sales to net sales.
   f. Selling expenses to net sales.
   g. Net profit on sales to net sales.

12. *a.* What is meant by merchandise turnover?
b. Which enterprise do you think should have the higher merchandise turnover, a retail grocery store or a retail furniture store? Why? Which then do you think should have the higher percentage of gross profit on sales? Why?

13. *a.* What is meant by the word *trend?*
b. To notice a trend must the increases or decreases be constant?
c. Over a series of years do you believe a company could determine whether there is a tendency of its sales volume in one of its products to decline or increase? Of its sales volume in certain geographical districts to increase or decrease? Of its manufacturing expenses or cost of materials or labor costs to increase or decrease?
d. Why is it important that trends such as those suggested by *c* be indicated to the management?

14. *a.* Is it the responsibility of the chief accounting officer to point out such changes and tendencies as may be observed by accounting analyses and interpretations? Explain.
b. Is it the responsibility of the chief accounting officer to make decisions and to take actions for the enterprise, as the result of such changes and tendencies as the studies of his department may indicate? Explain.

15. Suppose you studied the balance sheets and the statements of profit and loss of a company for a period of several years and noticed the following tendencies. Tell whether you would consider each one a favorable or an unfavorable tendency, with your reasons.
a. An increase in the ratio of notes payable to accounts payable.
b. An increase in the ratio of accounts and notes receivable to inventory of merchandise.
c. A decrease in the ratio of fixed assets to total assets.
d. A decrease in the ratio of current liabilities to total liabilities.
e. An increase in the charges for interest on fixed liabilities.
f. A decrease in the ratio of cost of goods sold to net sales.
g. An increase in the percentage of sales returns and allowances to net sales.
h. A decrease in the amount of sales.
i. An increase in the ratio of net sales to net worth.

16. Why do you believe the Surplus account should be analyzed?

17. Do you believe it would be helpful to the management of an enterprise, if it could compare the results of the analysis of its own financial statements with standard figures prepared from the statements of a number of companies in the same industry? Explain.

PROBLEMS

Chapter II. The Balance Sheet

1. The following items pertain to the business of T. A. Barnum. You are asked to use proper accounting titles and to group them as to assets, liabilities, and proprietorship. You need not show the various classes of assets and liabilities.

Notes owed by the business
Claims on customers for merchandise sold
B Company stock
Claims of creditors for merchandise purchased
Currency, coins, checks, and money orders
Prepaid insurance premiums
Salaries accrued to employees
Interest accrued on notes owed by the business
Wages paid in advance
Mortgage payable on the building
Amounts owed to the business by customers on notes
Land
Building
Stock of merchandise on hand
Rent collected in advance
The capital of T. A. Barnum
Interest accrued on bonds owned by the business

2. From the following information, determine the *total* amount of the liabilities. You need not classify the items in this problem.

Inventory of Merchandise..............	$1,250.00
Inventory of Supplies...	150.00
Furniture and Fixtures	980.00
Cash..................	$450.00
Accounts Receivable....	700.00
Accounts Payable......	300.00

The annual rent of $600.00 was paid in advance on May 1, the date the business started. The above facts pertain to December 31 of the same year.
The net worth of the business is $1,265.00.

3. Present the assets, liabilities, and the proprietorship of the first of the following transactions in the form of the fundamental accounting equation Assets = Liabilities + Proprietorship. Show the effect of each succeeding transaction on the preceding equation by setting up a new equation.
   a. J. Black invested $6,500.00 of cash and $5,000.00 of merchandise in a business and had the enterprise assume $2,000.00 of notes he owed on personal obligations.
   b. Purchased store fixtures at a cost of $1,000.00, terms 30 days net.
   c. Paid a $500.00 note.
   d. Merchandise that cost $350.00 was sold for $600.00.
   e. J. Black withdrew $75.00 of merchandise for personal use.
   f. Merchandise that cost $1,250.00 was sold for $970.00.
   g. Paid the liability arising out of the purchase of the store fixtures.

4. From the following list of items, which is complete except for Accounts Receivable, you are to determine the amount of accounts receivable and set up the balance sheet as of December 31, 19A, in account form. The asset and liability items need not be classified.

Inventory of Merchandise	$2,600.00
Net Worth of T. W. Brown	4,325.00
Inventory of Supplies	45.00
Furniture and Fixtures	880.00
Cash	$1,200.00
Accounts Payable	610.00
Notes Payable	750.00
Notes Receivable	550.00
Accounts Receivable	?

5. The following information pertains to the business of J. F. Beeley as of December 31, 19A. You are to prepare a classified balance sheet in account form as of that date, using proper accounting titles.

Furniture and Fixtures	$ 3,000.00
Prepaid Advertising	250.00
Delivery Truck	1,200.00
Cash	9,800.00
Land	5,000.00
Building	20,000.00
Mortgage Payable	11,000.00
Notes owed by the business	8,500.00
Inventory of Merchandise:	
Cost	19,000.00
Marked to sell at	38,000.00
Investment in Pennsylvania Railroad Bonds	$ 7,500.00
Accrued interest on above bonds	175.00
Claims of creditors for merchandise purchased	11,500.00
Claims on customers for merchandise sold	18,500.00
Accrued interest on mortgage payable	300.00
Accrued interest on notes owed by the business	25.00

6. C. P. Mates is considering the purchase of an interest in the business of A. P. Jack and employs you to set up a classified balance sheet of Jack's business in report form as of December 31, 19A, using proper accounting titles.

Inventory of Merchandise	$2,000.00
Land	1,400.00
Building	5,500.00
Rent received in advance	200.00
Accrued Interest Payable	60.00
Postage stamps	16.00
Mortgage Payable	2,000.00
Cash in bank	753.00
Unpaid taxes	335.00
Furniture and Fixtures	600.00
Claims of creditors for merchandise purchased	1,200.00
Checks received but not deposited	$ 253.00
Note payable to R. Post	360.00
Wrapping paper, bags, twine, etc	95.00
Promissory notes received from customers and not yet due	1,300.00
Promissory note payable to L. O. Light	1,165.00
Claims on customers for goods sold them	550.00

7. From the following list of items, prepare a properly classified balance sheet in account form for J. Allen as of December 31, 19A:

Accounts Receivable...	$13,000.00	Notes Receivable......	$ 5,000.00
Land.................	8,000.00	Auto Equipment......	1,800.00
Building..............	14,000.00	Furniture and Fixtures	3,800.00
Unearned Interest.....	30.00	Cash.................	12,000.00
Accrued Salaries Payable.................	100.00	Notes Payable........	3,320.00
Government Bonds....	1,500.00	Prepaid Office Expenses	80.00
Accrued Interest on Notes Receivable....	35.00	Accounts Payable.....	14,100.00
Inventory of Merchandise................	19,000.00	Net Worth of J. Allen..	?

8. From the following data, you are asked to prepare a properly classified balance sheet in report form for F. D. Ross as of December 31, 19A:

Delivery Equipment...	$ 1,400.00	Notes Payable........	$ 2,600.00
Furniture and Fixtures	3,900.00	Mortgage Payable.....	8,000.00
Notes Receivable......	1,650.00	Accrued Interest on Mortgage Payable...	120.00
Land............... ..	4,000.00	Accrued Taxes Payable	150.00
Buildings.............	12,850.00	Cash.................	2,455.80
Inventory of Store Supplies................	25.00	Accounts Receivable...	1,187.00
Prepaid Insurance.....	144.00	Accrued Interest Receivable............	10.00
Accounts Payable.....	5,830.00		
Inventory of Merchandise....	10,750.00		

9. From the following information taken from the books and records of Dale Chapman as of December 31, 19A, prepare a classified balance sheet in account form, using proper accounting titles. Do not combine the accrued interest items.

Land.................	$ 5,200.00	Interest accrued on B & O bonds............	$ 98.00
Patent...............	1,200.00	Interest accrued on mortgage payable...	240.00
Goodwill.............	1,000.00	Interest accrued on notes owed.........	39.00
Prepaid Insurance.....	500.00	Cash in safe and bank.	3,950.00
Furniture and Fixtures	3,000.00	Promissory notes received from customers................	5,800.00
Unpaid property taxes.	700.00	Promissory notes owed by the business.....	3,900.00
Bank Loan...........	4,000.00		
Unused advertising booklets......	180.00		
Delivery Equipment..	4,900.00		
Building..............	19,800.00		
Mortgage Payable... .	12,000.00		

Inventory of Merchandise:		Interest accrued on notes owed to the business	$ 43.00
Cost	$18,000.00	Rent collected in advance from tenant renting the third floor	230.00
Marked to sell at	26,500.00	Unused stamps, stationery, and other office supply items	190.00
Creditors' accounts totaling	12,000.00	Interest paid in advance on bank loan	35.00
Customers' accounts totaling	15,200.00	Accrued wages owed to employees	150.00
Salary Advances to Employees	75.00		
Unused store supplies	275.00		
Dale Chapman, Capital	?		
Baltimore & Ohio Railroad Bonds	7,800.00		

10. The items listed below were taken from the records of Robert Parke on December 31, 19A. You are requested to prepare a classified balance sheet in report form as of that date. The statement will require the use of three money columns.

Office Furniture and Fixtures	$ 1,200.00	Notes Receivable	$ 3,000.00
Accrued Property Taxes	200.00	Accounts Payable	7,000.00
Accrued Interest Receivable	10.00	Prepaid Insurance	200.00
Accrued Rent Receivable	50.00	XYZ Corporation Stock	500.00
Inventory of Merchandise	8,000.00	Cash	4,000.00
Rent Collected in Advance	60.00	Land	3,000.00
Accrued Interest Payable	5.00	Patent	1,000.00
Inventory of Store Supplies	50.00	Building	10,000.00
		Unearned Interest	5.00
		Mortgage Payable	7,000.00
		Notes Payable	2,000.00
		Accounts Receivable	6,000.00
		Delivery Truck	1,000.00
		Goodwill	5,000.00
		Prepaid Interest	5.00

11. The December 31, 19A balance sheet of the business of S. S. Dickson showed an excess of assets over liabilities of $43,860.00. An examination of the records showed that the following errors were made:

a. Accrued interest on a note payable was ignored. Amount $24.00.
b. Unearned Rent of $60.00 was treated as Prepaid Rent.
c. Withdrawals of cash by the proprietor were treated as an asset. Amount $150.00.
d. Prepaid Insurance of $152.00 was considered as $125.00.
e. Henry Morgan, a customer, was charged with $501.00 when the sale of merchandise was made to Harvey Morgen.

f. A typewriter was purchased on December 28 for $130.00 but the bookkeeper treated it as an expense of doing business instead of as an asset.

Present the figures in an orderly fashion to show the correct equity of the proprietor as of December 31, 19A. Begin your solution with the incorrect proprietorship and end it with the correct proprietorship.

12. The December 31, 19A balance sheet of the business of B. T. Atwood showed an excess of assets over liabilities of $39,520.00. An examination of the records showed that the following errors were made:

a. A new garage was erected during the last half of December at a cost of $375.00 but the bookkeeper treated it as an expense of doing business instead of as an asset.

b. Accrued property taxes of $255.00 were ignored.

c. Prepaid Interest of $30.00 was treated as Unearned Interest.

d. When a check for $115.00 was sent to Walker and Company, a creditor, the bookkeeper reduced the liability to Walker and Company by $155.00.

e. When a $202.00 check was received from the X Company in payment of a $200.00 note and $2.00 interest, the bookkeeper reduced Notes Receivable by $202.00. No accrued interest receivable had been recorded.

Present the figures in an orderly fashion to show the correct equity of the proprietor as of December 31, 19A. Begin your solution with the incorrect proprietorship and end it with the correct proprietorship.

Chapter III. Analysis of Proprietorship

1. You are requested to compute the net profit or net loss in each of the following cases. Submit your solutions in the form of an analysis of proprietorship, assuming you are the owner.

	A	B	C	D
Proprietorship, December 31, 19A..........	$15,000.00	$31,870.00	$21,250.00	$60,940.00
Proprietorship, January 1, 19A..............	16,000.00	24,393.00	25,030.00	59,750.00
Added investments during the year..........	5,000.00	4,945.00	2,560.00	6,500.00
Withdrawals during the year....	1,600.00	2,600.00	8,900.00	4,760.00

2. You are requested to set up a statement for each of the following cases to show the value of x:

	A	B	C	D
Proprietorship, December 31, 19A..........	$15,290.00	$ x	$12,500.00	$23,000.00
Proprietorship, January 1, 19A...............	19,400.00	32,000.00	8,675.00	x
Added investments during the year..........	x	2,150.00	5,340.00	4,900.00
Withdrawals during the year.................	5,235.00	4,800.00	x	2,225.00
Net Loss..............	1,100.00		900.00	
Net Profit.............		1,000.00		6,980.00

3. The business of A. K. Johnson was worth $14,850.00 on January 1, 19A. During the year, Johnson withdrew cash and merchandise totaling $500.00 and made added investments of $3,800.00 cash. The statement of profit and loss prepared for the year showed a net profit of $2,400.00. The balance sheet prepared as of December 31, 19A revealed liabilities of $4,575.00. Prepare a statement to show the amount of the assets on December 31, 19A.

4. *a.* On January 1, 19A, assets were valued at $116,580.30 and liabilities amounted to $88,716.24. One year later the assets were valued at $85,692.75 and liabilities amounted to $55,824.98. During 19A the proprietor, E. F. Jordan, withdrew $680.00 of merchandise and made an added investment of $4,800.00. Determine the net profit or loss for the year by presenting an analysis of proprietorship.

b. Rework the problem assuming the January 1, 19A, and December 31, 19A, figures were reversed.

5. The records of A. J. Thomas disclose the following information from which you are to present the balance sheets as of January 1, 19A, and June 30, 19A, in report form, and the analysis of proprietorship for the six-month period.

	January 1, 19A	June 30, 19A
Cash..................................	$ 5,000.00	$ 4,200.00
Rent Received in Advance................	400.00	375.00
Accounts Receivable.....................	10,500.00	12,050.00
Inventory of Merchandise................	25,000.00	22,770.00
Furniture and Fixtures..................	5,000.00	4,500 00
Land..................................	5,000.00	5,000.00
Building..............................	10,000.00	9,500.00
Accounts Payable.......................	5,000.00	6,000.00

During the six-month period Thomas withdrew merchandise that cost $500.00 and purchased a car for personal use with $2,000.00 of business cash. When the cash balance was low, he deposited $1,500.00 of personal cash to the credit of the business.

6. J. Winter began business January 1, 19A with assets consisting of $10,000.00 cash and merchandise on hand valued at $4,000.00. Within the following 12-month period he paid off a personal note for $750.00 with business cash and invested $3,250.00 of additional cash. On December 31, 19A, the assets and liabilities consisted of the following:

Cash	$ 1,000.00	Accounts Receivable	$ 7,700.00
Accounts Payable	6,000.00	Inventory of Supplies	100.00
Notes Payable	750.00	Unpaid Salaries	200.00
Furniture and Fixtures	1,250.00	Delivery Truck	1,100.00
Inventory of Merchandise	10,345.00	Notes Receivable	990.00

Required:

a. The balance sheet as of December 31, 19A in classified account form.

b. The analysis of proprietorship for the year.

7. V. B. Dugan wishes you to determine his net profit or loss for the past year. His books and records show the following facts as of December 31, 19A:

Land	$3,000.00	Accounts Payable	$6,000.00
Building	8,000.00	Cash	4,375.00
Inventory of Merchandise	5,500.00	Delivery Equipment	1,500.00
Accounts Receivable	5,250.00	Inventory of Fuel Oil	85.00
Notes Payable	1,220.00	Furniture and Fixtures	1,000.00

The balance sheet of V. B. Dugan prepared as of January 1, 19A showed an excess of assets over liabilities of $26,400.00. The records revealed that V. B. Dugan withdrew $350.00 of merchandise and invested $1,200.00 of additional cash during the year.

Required:

a. The balance sheet as of December 31, 19A, in classified report form.

b. The analysis of proprietorship for the year.

8. The following facts are from the partnership records of Larry and Burt:

	July 1, 19A	December 31, 19A
Current Assets	$25,865.00	$25,788.00
Current Liabilities	21,245.00	22,630.00
Deferred Credits	70.00	50.00
Prepaid Expenses	276.00	119.00
Fixed Assets	1,500.00	1,400.00
Stock of Texter Corporation	2,000.00	1,250.00

During the period from July 1 to December 31, the two partners made the following changes in their capitals:

	Larry	Burt
Withdrawals	$3,450.00	$2,360.00
Additional Investments	1,525.00	650.00

Net profit or losses are shared—¾ by Larry and ¼ by Burt.
Required:

a. Figures to show the net worth of the partnership on July 1, 19A, and December 31, 19A.
b. The analysis of proprietorship for the six months.
c. A statement to show the net worth of each partner on December 31, 19A, assuming that each partner had an equal investment in the firm on July 1, 19A.

9. J. A. Cooper met numerous difficulties in his chosen profession and decided to try his hand in a retail business. His father, M. J. Cooper, after fully discussing the matter with his son, purchased the business of a friend and turned it over to his son as a gift. On January 1, 19A, J. A. Cooper received merchandise worth $5,000.00, building worth $8,500.00, land worth $4,000.00, and store supplies worth $360.00. The real estate was mortgaged to the extent of $2,000.00. For working cash, J. A. Cooper borrowed $2,500.00 from a friend on a note that the business assumed.

Although J. A. Cooper kept an inadequate set of financial records, the following information was obtained as of June 30, 19A:

Fixtures worth	$3,500.00	Building worth	$8,000.00
Cash	1,500.00	Mortgage Payable	1,500.00
Customers owed	1,995.00	Notes Payable	500.00
U. G. Co. bonds owned	2,000.00	Accruals Payable	50.00
Cooper owed creditors for merchandise	1,320.00	Customers' notes held by J. A. Cooper	740.00
Merchandise Inventory:			
Cost price	4,100.00		
Marked to sell at	5,200.00		

J. A. Cooper guessed the land was now worth about $1,000.00 more than on January 1.

a. Prepare a classified statement to show the worth of Cooper's business on January 1, 19A.

b. Prepare a classified statement to show the worth of Cooper's business as of June 30, 19A.

c. What was the total amount of assets when Cooper began business?

d. What was the total amount of assets six months later?

e. Was the net gain or loss the difference between *c* and *d* above? (Answer yes or no.)

f. What was the total amount of liabilities when he started business?

g. What was the total amount of liabilities six months later?

h. Was the net gain or loss for the period the difference between *f* and *g*? (Answer yes or no.)

i. What was the net gain or loss of the business for the six-month period ended June 30, 19A? (Assume that Cooper took nothing from the business and made no added investments.)

j. If Cooper had used business cash to give $450.00 to the United Fund and $300.00 to his fraternity and still had a proprietorship at June 30, 19A as shown in part *b*, what would have been the net profit or loss for the six months?

k. If Cooper had made no withdrawals but had invested an additional $3,000.00 of cash which he inherited from his grandfather and had a proprietorship at June 30, 19A, as shown in part *b*, what would have been the net profit or loss for the six months?

10. On January 1, 19A, Charles Whitehead started business with assets amounting to $14,900.00 and with no liabilities. During the year Whitehead used business cash to pay a $1,000.00 mortgage on his home and had the business assume a $200.00 personal liability. Later in the year Whitehead sold securities he had owned personally and placed the cash in the business. The balance sheet prepared for Whitehead's business at the end of 19A would have shown a proprietorship of $12,678.00 had Whitehead not made the withdrawals or the added investment. The balance sheet as of December 31, 19A showed total assets of $26,134.00 and a proprietorship of $15,922.00.

Note: The amount of the added investment will be determined as part *b* is answered.

Required:

a. The net loss for the year.

b. The analysis of proprietorship for the year.

c. The total amount of liabilities at December 31, 19A.

Chapter IV. The Statement of Profit and Loss

1. Select the necessary items from the following data and prepare a statement of profit and loss covering the 12 months ended December 31, 19A, for the business of R. M. Lloyd:

Sales Returns	$ 487.21	Inventory of Merchandise December 31, 19A	$16,598.20
Office Salaries	1,800.00	Miscellaneous Store Expenses	754.75
Store Salaries	4,200.00	Miscellaneous General and Administrative Expenses	500.00
Purchases	59,522.19	Interest on Notes Receivable	430.00
Insurance	73.65	Accrued Rent Payable	200.00
Advertising	1,667.25	Purchase Returns	860.00
Sales	73,914.40	Rent Expense	2,475.00
Delivery Expenses	2,510.00		
Accounts Payable	10,920.00		
Repairs	20.00		
Inventory of Merchandise January 1, 19A	11,637.13		

2. From the following data prepare a statement of profit and loss for the business of A. T. Hipple covering the six-month period ended June 30, 19A:

Purchases	$172,518.00	Inventory of Merchandise January 1, 19A	$28,812.00
Sales	205,710.00	Inventory of Merchandise June 30, 19A	25,683.00
Sales Salaries	15,550 00	Miscellaneous Selling Expenses	860.00
Freight In	1,219.00	Discount on Purchases	3,042.00
Delivery Expenses	3,909 00	Sales Returns and Allowances	1,662.00
Purchase Returns	980.00		
Office Salaries	7,300.00		
Rent Expense	3,000.00		
Miscellaneous General and Administrative Expenses	351.00		

3. *a.* You are asked to check a profit and loss statement that had been prepared by Edward Andrews covering the year ended December 31, 19A. Among other facts it shows:

Cost of Goods Sold	$41,567.00
Net Profit for the Year	6,819.00

Assume that you find the statement correct except that $2,315.00 of merchandise which arrived on December 31, 19A was included in the purchases but was not included in the inventory of that date. Correct the Cost of Goods Sold and the Net Profit for the Year.

b. Would your answer to *a* be changed if the goods had been included in the inventory but had not been recorded in purchases? How?

4. In each of the two cases below arrange the facts as they would appear in a statement of profit and loss. The values of x are to be shown in the statements.

	A	B
Initial Inventory of Merchandise........	x	$16,480.00
Final Inventory of Merchandise.........	$ 17,900.00	13,670.20
Gross Profit on Sales..................	49,555.00	x
Sales..................................	x	49,363.50
Purchases..............................	103,782.00	36,780.50
Cost of Goods Sold	111,016.00	80% of Net Sales
Transportation In......................	1,375.00	624.75
Sales Returns and Allowances	1,232.00	768.50
Purchase Returns and Allowances	963.00	x
Operating Expenses.....................	33,719.00	10,958.26

5. From the data given in each of the following cases prepare a statement of profit and loss for the six months ended June 30, 19A, for the businesses of Oscar Hipple and J. A. Wild, respectively:

Sales Discounts..............	$ 1,700.00	$ 1,460.00
Rent Expense	10,000 00	7,500.00
Sales	158,635.40	81,380.00
Inventory of Merchandise, June 30, 19A	14,960.00	20,875.00
Office Salaries................	6,400.00	3,000.00
Interest on United States Bonds	750.00	575 00
Purchases......................	99,700.00	62,710.00
Salesmen's Salaries	8,300.00	7,600.00
Delivery Expenses	3,225.50	5,750.00
Interest on Notes Payable......	160.00	200.00
Purchase Returns and Allowances	4,820.50	2,234.90
Inventory of Merchandise, January 1, 19A	26,790.00	17,744.00
Sales Returns and Allowances	1,500.00	1,350.00
Transportation In..............	1,213.00	1,155.70
Purchase Discounts	1,150.00	884.30
Miscellaneous General Expenses....	700.00	800.00
Loss from Fire.................	560.00	0
Advertising....................	1,900.00	900.00
Donations......................	200.00	0
Commissions Earned.............	0	100.00

6. The following facts were taken from the records of Chester Stanford as of December 31, 19A. You are asked to select the necessary

ones and prepare a statement of profit and loss for the calendar year 19A. Ignore any balance sheet items, as not all the facts necessary to prepare a complete balance sheet are given.

Inventory of Merchandise, January 1, 19A	$12,037.13	Store Supplies Used	$ 635.00
Purchases	78,490.27	Transportation In	875.90
Sales	84,977.90	Wages—Store	9,450.00
Cash	1,612.20	Miscellaneous General Expenses	960.97
Accounts Payable	11,299.50	Accounts Receivable	11,246.40
Office Equipment	2,900.00	Interest Expense	435.33
Rent Expense	2,800.00	Discount on Purchases	1,209.40
Sales Discounts	1,273.64	Notes Payable	700.00
Notes Receivable	490.00	Advertising	1,445.00
Returned Purchases	490.60	Returned Sales	440.56
Inventory of Merchandise, December 31, 19A	20,560.00	Wages—Office	2,100.00
Cash Dividends—Dupont Stock	350.00	Insurance—Expired	110.00
		Accrued Wages Payable	180.00
		Repairs	120.00

7. The following information was taken from the books and other records of William A. Jenks as of December 31, 19A:

Sales	$105,413.00	Property Taxes	$ 1,909.00
Cash	9,620.00	Accounts Receivable	9,274.75
Office Salaries	8,350.00	Salesmen's Salaries	4,388.00
Interest Income	367.50	Mortgage Payable	16,750.00
Purchases	68,733.65	Heat and Light	515.25
Delivery Equipment	2,580.00	Insurance—Expired	435.00
Delivery Expenses	3,978.30	Sales Returns and Allowances	952.00
Buildings	22,400.00	Accrued Taxes Payable	645.60
Inventory of Merchandise, January 1, 19A	14,734.25	Office Expenses	1,268.92
Notes Receivable	5,705.00	William A. Jenks, Capital	x
Sales Discounts	541.60	Store Equipment	3,460.00
Miscellaneous Selling Expenses	1,200.00	Accounts Payable	8,971.68
Miscellaneous General Expenses	641.66	Purchase Returns and Allowances	977.20
Land	8,700.00	Purchase Discounts	1,116.10
Notes Payable	2,396.75	Interest Expense	530.00
Transportation Out	1,267.40		

Further investigation disclosed that there was a merchandise inventory of $13,312.60 on December 31, 19A.

Prepare:

a. A balance sheet as of December 31, 19A.

b. A statement of profit and loss for the year ended December 31, 19A.

c. An analysis of proprietorship, assuming that William A. Jenks had an equity in the business on January 1, 19A of $38,181.47 and that during the year he withdrew merchandise worth $4,665.27 and $2,350.00 of cash. During the same year he turned over to the business certain assets valued at $3,380.75.

8. The following facts were taken from the books and other records of Perry McConnell as of December 31, 19A:

Accounts Payable	$ 4,821.00	Interest on United States Bonds	$ 80.00
Notes Receivable	665.00	Mortgage Payable	12,500.00
Accrued Commissions Payable	455.00	Interest on Mortgage	750.00
Cash	5,666.00	Sales	54,375.00
Miscellaneous General Expenses	605.00	Prepaid Advertising	1,200.00
Purchases	37,767.00	Land	7,250.00
Inventory of Merchandise, January 1, 19A	13,655.00	Sales Returns and Allowances	698.00
Accounts Receivable	5,773.00	Notes Payable	1,560.00
Building	12,650.00	Insurance—Expired	550.00
Purchase Discounts	716.00	Purchase Returns and Allowances	820.00
Sales Commissions Expense	4,363.00	Furniture and Fixtures	1,000.00
Transportation Out	3,546.00	Advertising Expense	2,275.00
Inventory of Merchandise, December 31, 19A	16,942.00	Office Salaries	4,645.00
Interest on Notes Payable	66.00	Freight In	882.00
		Investment in U. S. Bonds	2,000.00
		Perry McConnell, Capital	x

Prepare:

a. A balance sheet as of December 31, 19A.

b. A statement of profit and loss for the year ended December 31, 19A, assuming only the above facts.

c. An analysis of proprietorship, assuming that on January 1, 19A Perry McConnell had an equity in the business of $38,126.00 and that during the fiscal period he made additional investments of $2,318.00 and withdrew a total of $9,765.00 in cash.

9. The following facts were taken from the books and other records of Glenn Dudley as of December 31, 19A:

Cash	$1,200.00
Accounts Receivable	3,700.00
Notes Receivable	2,000.00
Store Salaries	360.00
Notes Payable	2,100.00
Sales Discounts	25.00
Interest Income	10.00
Mortgage Payable	6,000.00
Sales	8,000.00
Accounts Payable	2,600.00
Delivery Equipment	1,000.00
Goodwill	2,000.00
Postage (Used)	9.00
Advertising	60.00
Building	7,400.00
Store Equipment	2,000.00
Property Taxes	38.00
Interest Expense	10.50
Transportation Out	30.00
Office Salaries	390.00
Office Expenses	35.00
Light and Heat	110.00
Transportation In	48.00
Commissions Earned	100.00
Rent Income	50.00
Store Supplies (Used)	40.00
Purchase Discounts	70.00
Sales Returns and Allowances	150.00
Purchase Returns and Allowances	120.00
Rent Collected in Advance	100.00
Depreciation of Building	25.00
Depreciation of Delivery Equipment	13.00
Depreciation of Store Equipment	20.00
Depreciation of Office Furniture and Fixtures	8.00

Accrued Interest Payable	$ 40.50
Merchandise Inventory, 12/1/19A	7,600.00
Merchandise Inventory, 12/31/19A	8,000.00
Accrued Interest Receivable	10.00
Investment—Celanese Preferred Stock	500.00
Cash Dividends—Celanese Stock	20.00
Gain on Sale of Fixed Assets	20.00
Accrued Salaries Payable	96.00
Office Furniture and Fixtures	900.00
Inventory of Store Supplies	70.00
Accrued Property Taxes Payable	152.00
Insurance on Merchandise	2.50
Insurance on Building	10.00
Insurance on Store Equipment	4.00
Insurance on Delivery Equipment	3.00
Insurance on Office Furniture and Fixtures	4.00
Accrued Commisions Receivable	100.00
Delivery Expenses	110.00
Repairs	26.00
Telephone and Telegraph	9.50
Mortgage Interest	30.00
Prepaid Insurance	120.00
Purchases	5,100.00
Land	2,800.00
Glenn Dudley, Capital	?

Required:

a. A classified balance sheet in account form as of December 31, 19A.

b. An analysis of proprietorship for the month of December, 19A. Dudley's equity in the business as of December 1, 19A was $18,397.00. During December he made withdrawals of $1,800.00 and added investments of $2,000.00.

c. A statement of profit and loss for the month of December, 19A.

10. From the items listed below, prepare a statement of profit and loss for the calendar year ended December 31, 19A. Assume you are the owner of the business in setting up the proper heading for the statement.

	Case A	Case B	Case C	Case D	Case E
Inventory of Merchandise 1/1/19A	$ 3,500	$ 6,000	$ 7,295	$ 4,921	$ 3,600
Inventory of Merchandise 12/31/19A	4,000	11,675	10,072	5,929	4,100
Transportation Out	200	1,400	510	300	180
Transportation In	700	2,100	1,425	939	900
Sales	31,000	105,000	76,000	41,700	29,000
Purchases	21,500	85,494	63,005	29,251	21,000
Sales Returns and Allowances	800	1,700	800	3,250	300
Purchase Returns and Allowances	500	1,450	1,215	721	490
Purchase Discounts	350	1,731	1,160	110	400
Sales Discounts	380	1,053	1,064	798	520
Interest Expense	40	20	22	34	32
Interest Income	30	60	19	18	19
Miscellaneous Sales Expenses	130	380	290	180	120
Miscellaneous Office Expenses	60	320	165	101	55
Property Taxes	300	700	530	400	290
Office Salaries	1,500	3,300	3,450	1,900	1,600
Sales Salaries	2,800	9,500	5,700	3,275	2,700
Store Supplies Used	360	1,180	720	440	340
Office Supplies Used	200	575	430	240	185
Heat and Light	240	500	410	300	220
Insurance on Building and Equipment	230	450	315	285	210
Advertising	90	1,390	760	330	100
Telephone and Telegraph	120	290	175	150	98
Bad Debts	165	2,000	1,030	400	215
Depreciation of Building	400	1,000	790	500	380
Depreciation of Sales Equipment	300	250	220	210	285
Depreciation of Office Equipment	150	100	140	175	140
Loss on Sale of Fixed Assets	125	30	100	218	600

Chapter V. Accounts—Their Construction

1. Set up the Cash account and record the
   a. Investment of $7,500.00 cash by Marvin Morse, the owner.
   b. Receipt of $60.00 for merchandise sold for cash.

c. Purchase of a delivery truck for $1,500.00, terms $400.00 cash and the remainder on account.
d. Borrowing of $1,200.00 from the New National Bank on a 60-day 6 per cent interest-bearing note.
e. Receipt of $350.00 from Thomas Jackson on account.
f. Drawing of a check for $105.00 in payment of a new typewriter to be used in the business.
Rule and balance the account.

2. On the books of a business the account of Harold Blower had a credit balance of $3,400.00 at the beginning of the year 19A. During the year merchandise in the amount of $12,000.00 was purchased by the business from Blower on account. Of this merchandise, $2,300.00 was subsequently returned to Blower because it did not meet specifications. At the end of the year Blower's account had a credit balance of $4,200.00. How much cash was paid to Blower during the year? Set up Blower's account. Rule and balance.

3. On the books of a business the account of A. W. Hawkins had a debit balance of $5,460.00 on January 1, 19A. On December 31, 19A his account had a debit balance of $2,680.00. During the year Hawkins made payments in cash amounting to $4,170.00, gave a 60-day noninterest-bearing note for $2,000.00 in another partial payment on his account, and returned $420.00 worth of merchandise he bought during the year. How much merchandise did he buy during the year? Set up Hawkins' account. Rule and balance.

4. Set up a form similar to the illustration below and indicate in the proper column, with an *x*, the kind of balance each account has.

Item	Real		Nominal	
	Debit	Credit	Debit	Credit
Cash (Illustration)	x			

Accounts Payable
Initial Inventory of Merchandise
Rent Received in Advance
Sales Discounts
Purchase Returns and Allowances
Transportation Out
Office Supplies Used
Repairs to Buildings
Gain on Sale of United States Bonds
Accrued Interest on Notes Payable
Notes Receivable
Interest Earned
Administrative Salaries
Inventory of Office Supplies
Unexpired Insurance
Purchase Discounts
Transportation In
Bonds Payable
Accrued Wages Payable
Dividends Received

5. From the records of H. G. Bronson you learn that at the end of 19A his capital account showed a credit balance of $11,500.00 before the net profit of $3,280.00 for 19A was entered as a credit. During the year 19A Bronson withdrew $300.00 of merchandise and made added investments of $2,500.00.

Required:

a. The equity of the owner in the business at the beginning of the year.

b. The equity of the owner in the business at the end of the year.

c. The analysis of proprietorship for the year.

6. From the records of R. J. Hanson you learn that at the end of 19A his capital account showed a credit balance of $18,320.00 before the net loss of $2,450.00 for 19A was entered as a debit. During the year 19A he withdrew $250.00 of merchandise and made an added investment of $1,000.00.

Required:

a. The equity of the owner in the business at the beginning of the year.

b. The equity of the owner in the business at the end of the year.

c. The analysis of proprietorship for the year.

7. The following account balances were taken from the ledger of F. G. Horne as of December 31, 19A:

Sales..............	$51,450.00	Store Equipment......	$1,000.00
Purchase Returns and Allowances.........	1,250.00	Freight In............	750.00
Cash.................	6,800.00	Freight Out...........	250.00
Inventory of Merchandise, January 1, 19A	3,300.00	Insurance—Expired...	500.00
Accounts Payable.....	1,750.00	Sales Discounts.......	600.00
Accounts Receivable...	4,000.00	Purchase Discounts....	500.00
Purchases............	38,000.00	Interest Expense......	50.00
Sales Returns and Allowances...........	1,500.00	Interest on Mortgage..	1,500.00
Depreciation of Building................	900.00	Notes Receivable......	2,500 00
Mortgage Payable.....	25,000.00	Notes Payable........	2,000.00
Depreciation of Store Equipment.........	100.00	Salesmen's Salaries....	4,800 00
Land.................	7,500.00	Office Expenses.......	1,000.00
Building.............	27,000.00	Advertising Expense...	1,850.00
F. G. Horne, Capital..	27,500.00	Property Taxes.......	600.00
		Delivery Truck Expenses.............	1,800.00
		Delivery Truck.......	3,000.00
		Interest Earned.......	50.00
		Store Supplies Used...	200.00

List the above accounts on a sheet of two-money-columned paper. Opposite each place its balance in either the debit or credit money

column, wherever it belongs. Total both columns. They should agree. Assume that Horne had a merchandise inventory of $6,500.00 on December 31, 19A.

Prepare:

a. The balance sheet as of December 31, 19A.

b. The statement of profit and loss for the year.

c. An analysis of proprietorship, assuming that during 19A Horne withdrew $760.00 of merchandise and made additional investments of $3,500.00.

8. The following account balances were taken from the ledger of A. L. Long as of December 31, 19A:

Cash	$12,289 00	Interest Income	$ 82.00
Sales	69,948.00	Notes Receivable	1,360.00
Inventory of Merchandise	16,198.00	Sales Returns and Allowances	915.00
Purchases	34,000.00	Accounts Receivable	6,921.00
Salesmen's Salaries	7,250.00	Prepaid Insurance	520.00
Depreciation of Store Equipment	400.00	Buildings	35,000.00
		Land	9,000 00
Delivery Truck Expenses	1,957.00	Store Equipment	5,000.00
		Office Expenses	1,200.00
Depreciation of Buildings	1,100.00	Accounts Payable	3,300.00
		A. L. Long, Capital	62,183.00
Property Taxes	1,035.00	Interest Expense	790.00
Auto Equipment	2,500.00	Sales Discounts	562.00
Repairs to Buildings	1,500.00	Office Salaries	6,200.00
Notes Payable	800.00	Heat and Light	850.00
Mortgage Payable	11,000.00	Accrued Wages Payable	75.00
Miscellaneous General Expenses	841.00		

List the above accounts on a sheet of two-money-columned paper. Opposite each place its balance in either the debit or credit money column, wherever it belongs. Total both columns. They should agree. Assume that Long had a merchandise inventory of $15,372.00 on December 31, 19A.

Prepare:

a. The balance sheet as of December 31, 19A.

b. The statement of profit and loss for the year.

c. An analysis of proprietorship, assuming that during the year Long withdrew $4,000.00 of cash and turned over to the business an automobile valued at $400.00.

9. List the following account balances on a sheet of two-money-columned paper. Opposite each place its balance in either the debit or credit money column, wherever it belongs. Total both columns. They should agree.

Purchase Returns and Allowances	$ 925.00	Depreciation of Store Furniture and Fixtures	$ 350.00
Inventory of Merchandise	9,265.00	Notes Payable	2,800.00
Delivery Truck Expenses	2,020.00	Property Taxes	560.00
Depreciation of Building	300.00	Building	11,020.00
Sales Returns and Allowances	1,015.00	Advertising	1,945.00
Gain on Sale of U.S. Steel Stock	380.00	Cash	9,289.00
Cash Dividends Received	200.00	Accounts Payable	6,952.00
Accrued Taxes Payable	400.00	Sales	73,749.00
Telephone and Telegraph	250.00	Land	4,000.00
R. W. Elwell, Capital	27,620.00	Office Expenses	500.00
Accrued Salaries Payable	400.00	Prepaid Rent	80.00
United States Government Bonds	4,300.00	Interest Expense	311.00
Store Furniture and Fixtures	3,500.00	Transportation Out	988.00
Inventory of Store Supplies	50.00	Delivery Equipment	2,440.00
		Bad Debts	776.00
		Mortgage Payable	6,000.00
		Store Salaries	2.352.00
		Sales Discounts	776.00
		Purchases	57,632.00
		Insurance	250.00
		Prepaid Insurance	325.00
		Goodwill	5,500 00
		Purchase Discounts	568.00
		Store Expenses	200.00

Chapter VI. Accounts—Their Operation

1. Set up a T account for J. K. James, the owner, and record therein the following items. You need not show the other ledger accounts.

a. J. K. James began business on January 1, 19A investing $600.00 cash, merchandise worth $6,350.00, and an auto truck worth $1,100.00. The business assumed his $750.00 note owing to William Haines.

b. During the next twelve months James withdrew merchandise marked to sell at $350.00. This merchandise cost $270.00.

c. James wrote a business check for $152.00 in payment of furniture purchased for his home.

d. Since there was insufficient cash in the business at the time to meet the obligation, James paid the note owing to William Haines by personal check.

e. The business made a net profit of $2,126.00 for the year ended December 31, 19A.

Rule and balance the account.

2. *a.* Set up the ledger accounts as they would appear on the books of John White for the following transactions with Frank Zoller:

(1) Sold merchandise to Zoller for $1,370.00 and received a check for $520.00, the balance to remain on open account for 30 days.

(2) Zoller notified John White that some of the merchandise was slightly soiled. White gave Zoller an allowance of $178.00.

(3) At the end of 30 days Zoller gave White a check for $350.00 and a 60-day note for the balance.

(4) Zoller sent a check to pay his note.

b. Set up the ledger accounts for the above transactions on the books of Frank Zoller.

3. Set up T accounts and enter the debits and credits for the following transactions:

a. Ronald Cooper began a retail furniture business, investing $1,115.00 cash and merchandise worth $4,226.00.

b. Purchased store supplies in the amount of $45.00 and paid cash. Purchased $1,150.00 of fixtures from the Best Service Company on account.

c. Borrowed $1,000.00 from the First National Bank, giving a 60-day 6 per cent interest-bearing note. Sent a check to Best Service Company in full of account.

d. Sold merchandise worth $750.00 to J. L. Moore for cash. Sold merchandise worth $612.00 to B. A. Mills on account.

e. Purchased $960.00 of merchandise from A. R. Cook & Company, paying $410.00 in cash, the remainder on account.

f. B. A. Mills's account became due and he was unable to pay. However, he sent his 30-day 6 per cent interest-bearing note for the balance of his open account.

4. Set up T accounts and enter the debits and credits for the following transactions:

October 1. James Elliott began a builders' supply business, investing $14,050.00 cash, land worth $4,000.00, and a building valued at $6,200.00.

Purchased a carload of cement from the Duoversal Company for $1,279.40. Terms 20 days net.

Sent a check for $202.15 to the P. & L. E. R. R. Company covering freight on the cement.

6. Purchased a Mack truck from J. M. Whitting and Company for $2,024.00, making a down payment of $525.00 in cash and giving a 90-day note for the balance.
7. Purchased lime, sand, and gravel from the Allegheny Supply Company for $3,471.20. Terms $740.00 cash and the balance on open account.
11. Received credit for $50.30 from the Duoversal Company for sacks of cement that were hardened beyond use.
12. Elliott purchased an automobile for his family's use from J. T. James for $1,215.00 and paid for it by business check.
15. Paid wages of $345.55 for the first half of October.
Sent a check for $98.75 to the *Pittsburgh Press* for advertising.

Prepare a balance sheet as of October 15. Assume that no sales of supplies have been made and the inventory of merchandise was valued at its cost price of $4,902.45. Also assume that the advertising order was not to be filled by the *Pittsburgh Press* until October 16, the Sunday edition of the *Press.* Would you say the business of Mr. Elliott was worth more, less, or the same on October 15 as compared with its worth on October 1?

5. On December 1, 19A, John Mills purchased the business of Kenneth Monroe for $18,107.00, paying half the amount by personal check and settling the balance with a 60-day noninterest-bearing note that was assumed by the new business. In addition, Mills placed $2,200.00 cash in the business. John Mills acquired the following assets and assumed the following liabilities, as shown by the balance sheet prepared for Kenneth Monroe.

Balance Sheet, December 1, 19A

Accounts Receivable:			Accounts Payable:		
Harry Finley....	$1,642.00		D. Downing.....	$ 645.00	
Thomas Brown..	952.00		R. Cable........	1,233 00	$ 1,878.00
Norman Ridlen..	866.00	$ 3,460.00	Notes Payable..............		2,845.00
Notes Receivable............		2,321 00	Total Liabilities............		$ 4,723.00
Inventory of Merchandise.....		4,964 00	Proprietorship...............		18,107.00
Land.......		3,000.00			
Building..		6,300 00			
Furniture and Fixtures........		2,785.00			
		$22,830.00			$22,830 00

a. Record all the above facts in the ledger of John Mills.

December 3. Purchased merchandise from E. N. Wright for $651.00. Terms 2 per cent 10 days, 30 days net.
Paid $21.35 freight and cartage on the merchandise purchased from E. N. Wright.
4. Sent a check to D. Downing in full of account.
Paid cash for office supplies in the amount of $14.98.

Paid $102.00 to the Royal Typewriter Company for a typewriter for the office.

5. Received a check from Harry Finley in full of account.
Sold merchandise to D. J. Henry for $918.00 and received his 20-day note for the entire amount.
Purchased merchandise from A. J. Dohner amounting to $1,560.00. Terms 2 per cent 10 days, 30 days net.
6. Purchased additional fixtures for $233.00 from the Morrow Supply Company, on account.
Cash sales for the day amounted to $614.00.
Sold merchandise to Martin Butcher for $717.00. Terms, 30 days net.
John Mills withdrew merchandise marked to sell at $87.00 which had cost $62.00.
7. Sold merchandise to J. R. Baxter for $213.00, on account.
Returned defective merchandise purchased from A. J. Dohner on December 5, receiving credit for $102.00.
Thomas Brown sent a check for $516.00 and a 30-day 6 per cent interest-bearing note to cover the balance of his indebtedness.
Paid off the assumed note of $2,845.00 to the Iron City Bank.
9. Cash sales for the day amounted to $423.00.
J. R. Baxter returned $42.00 of merchandise that was sold to him on December 7. Mills gave him full credit.
Paid wages of the store clerks for the first week, $82.00.
D. J. Henry made an early settlement of his note of December 5, by check.

b. Enter the debits and credits for the above transactions in the ledger of John Mills.
c. Prepare a list of the open accounts with their debit or credit balances as of the close of business on December 9, 19A.

6. Set up T accounts and enter the debits and credits for the following transactions:

November 1. D. O. Moore entered the hardware business. He invested $5,500.00 cash, an automobile truck valued at $750.00, and a safe valued at $200.00. Moore owed $175.00 to Conkel Sales Company on the truck, which debt the new business assumed.
2. Purchased $8,456.00 of merchandise from the Keystone Supply Company. Terms 2 per cent 10 days, 30 days net.
Sent a check to Penn Realty Company for rent, $145.00.
Purchased a cash register from the Union Register Company for $365.00 cash.
3. Cash sales amounted to $267.00 for the day.
Sold merchandise to Cole and Company on account in the amount of $532.00.

Returned defective merchandise to the Keystone Supply Company and received credit for $148.00.
Paid $12.15 for postage and $14.50 for office supplies.
5. Purchased gasoline and oil for the automobile truck.
Received a bill for $3.45 from the Speedway Gasoline Company.
The business assumed Mr. Moore's personal note to Robert Dawson, a friend, who had loaned him $2,316.00.
6. Purchased $4,598.00 of merchandise on account from the Globe Supply Company.
Sent Keystone Supply Company a check to settle half of the balance due them. They agreed to allow discount on the partial payment.
Sold Boggs and Company a bill of goods for $873.00. Terms 30 days net.
Cash sales for the day amounted to $461.00.
8. Received a check from Cole and Company for the full amount owed by them.
Dale, Todd, and Company purchased $1,500.00 of merchandise on account.
Paid salaries for the week in the amount of $145.00.
9. Dale, Todd, and Company sent a 30-day, 6 per cent interest-bearing note for $700.00 to apply on their account.
Moore added to his investment by bringing a typewriter from his home to be used in the business office. The typewriter was worth $90.00 at this date.
Gave the Keystone Supply Company a 60-day 6 per cent interest-bearing note for the balance due them. They allowed the discount.
12. Sold merchandise worth $1,268.00 to McLane and Company on account.
Allowed Boggs and Company credit of $79.00 for material sold them and found to be defective.
Moore withdrew $166.50 cash for personal use.
Sent a check to Speedway Gasoline Company for their bill of November 5.

Prepare a list of the open accounts with their debit or credit balances as of the close of business November 12.

Chapter VII. Journalizing and Posting

1. Record the following transactions in the journal of P. J. Vance:

October 1. Purchased merchandise from J. L. Burman amounting to $788.00, terms 2/10, n/30.
2. Sold merchandise to T. A. Laughlin for cash, $102.00.
5. Sold merchandise to B. L. Boyce amounting to $98.00. Terms 30 days net.

6. P. J. Vance returned $56.00 worth of merchandise purchased from J. L. Burman and received credit for the same.
8. James Gainer gave a 60-day noninterest-bearing note for $322.00 for merchandise he purchased today.
11. Purchased a cash register on account from the National Cash Register Company for $177.00.
12. B. L. Boyce returned a part of his purchase and was given $14.00 credit.
14. Sold merchandise to Winfield Evans amounting to $617.00. Terms $170.00 in cash, a note for $230.00, and the balance on open account.

2. Journalize the following transactions:

October 2. James Stoker began business investing $2,818.00 cash, store fixtures worth $1,700.00, and merchandise worth $3,952.00. He had the business assume a note he owed Ralph Day for $1,102.00 and an amount of $961.00 owing to Edward Richards on open account.

3. Purchased $724.00 of merchandise from Charles Hamilton. Terms 30 days net.
Sold $391.00 of merchandise to Frank McGuire, receiving a 60-day 6 per cent interest-bearing note for $150.00, and the remainder on open account.
4. Paid $16.53 in cash, for store supplies received from Hiland Supply Company.
5. Sold merchandise to B. Wallace for $1,675.00, receiving in payment a delivery truck valued at $620.00, an office desk worth $56.00, and the balance in cash.
7. Sent a check to Edward Richards for $450.00 to apply on account.
9. Stoker withdrew $70.00 in cash as his weekly salary.
Received a bill for $81.00 from the Nu-Coat Painters Company for work done in preparing the store for occupancy on October 2. Stoker intended to pay the bill November 1.

3. Journalize the following transactions on the dates indicated. You need not make entries that were necessary on previous dates; it is assumed they were made correctly.

October 1. Paid Burroughs Adding Machine Company $125.00 for a machine purchased last month. An entry was made last month at the time the machine arrived.

2. Purchased $2,763.00 of merchandise from Rupert Taylor and gave him a $1,500.00 noninterest-bearing note and a check for the balance.
3. The proprietor withdrew merchandise for home use that was marked to sell at $90.00. This merchandise was marked to yield a gross profit of 25 per cent of cost.

4. Returned $38.00 worth of goods purchased from T. L. Thomas a week ago and received full credit for it.
6. Purchased for cash $10.00 of Christmas Health Seals to be placed on business letters.
   The business donated a radio from the merchandise stock to a charitable organization. The selling price of the set was $98.50; the cost was $49.25.
7. Sent a check to the Excello Radio Corporation covering a purchase of $1,485.00 on September 28. The payment was in time to take advantage of the 2 per cent discount that was offered if paid within 10 days.

4. Journalize and post the following transactions:

November 1. William Lapan began business, investing cash $9,800.00, an auto truck worth $1,980.00, a note signed by H. Crawford for $1,400.00, and an open account of S. Laird for $674.00. The business assumed two of Lapan's liabilities, a note given to C. Harris for $718.00 and an open account to F. Jackson for $981.00.

2. Paid the November rent for the store to Greenfield & Company, amount $215.00.
   Purchased merchandise for $2,320.00 from T. T. Lott. Terms 30 days net.
3. Sold merchandise to Henry Brothers for $1,105.00 and to Carter & Company for $812.00. Terms of each sale 2/10, n/30.
4. Paid $3.40 cash for gasoline and oil to T. L. Lowry, Inc.
   Cash sales to date were $684.00.
6. Sent a check for $557.00 to F. Jackson to apply on account.
7. Purchased on account from the Empire Office Supply House a desk for $97.00, a typewriter for $102.00, and stationery and other office supplies for $39.00.
8. Received a check from H. Crawford in full settlement of the note invested by Lapan on November 1.
10. Purchased merchandise from C. Brink for $2,301.00. Gave in payment cash $950.00, a noninterest-bearing note for $500.00, and the balance on open account.
12. Henry Brothers remitted in full for their purchase on November 3, less the discount.
13. Returned $144.00 worth of merchandise to C. Brink and received a credit memorandum for the same amount.
15. Received and filed for future payment a bill for $19.50 from Harper and Company for additional office supplies delivered.
16. Lapan withdrew from the business cash $125.00 and merchandise that had cost $77.00.

5. Journalize the following transactions of the hardware business of R. D. Irwin:

November 1. R. D. Irwin invested $2,145.00 cash, merchandise worth $7,750.00, store equipment valued at $1,982.00, and accounts owed R. D. Irwin by T. R. Jacques $660.00 and by C. F. Boyd $420.00. Irwin had the business assume notes payable for $3,100.00 and open accounts owing to L. G. Powers for $466.00 and to H. L. Hoff for $727.00.

2. Paid $165.00 rent for November to F. L. Thorn.
Borrowed $1,980.00 from the First National Bank and gave a 60-day noninterest-bearing note for $2,000.00. (Charge the difference to Interest Expense.)

3. Received a bill for $37.00 from T. V. Short for stationery and office supplies.

4. Purchased merchandise for $863.00 from I. W. Petrie subject to 2 per cent discount if paid in 10 days.

6. Sold merchandise worth $123.00 to H. Tator for cash.
Received $150.00 commission for selling a piece of land for A. B. Slick.

7. Sold merchandise amounting to $670.00 to M. A. Willard. Terms were cash $200.00, a 60-day 6 per cent interest-bearing note for $225.00, and the remainder on open account.

9. H. Tator returned $56.00 worth of merchandise and received cash.

10. Purchased coal for $18.00 cash.
Purchased merchandise from T. A. Wright for $985.00. Terms 2/10, n/30.

12. Unrecorded cash sales to date amounted to $2,464.00.

13. Returned $120.00 worth of merchandise purchased from T. A. Wright and received full credit.

14. Sent a check to I. W. Petrie for the purchase of November 4, less the discount.

15. The business donated $15.00 to the Salvation Army.
Paid one of the notes originally assumed by the business. The amount of the note was $1,100.00.

Post to the ledger. Preserve the solution to this problem.

6. Journalize and post the following transactions of the business of P. L. Moore:

December 1. P. L. Moore began business investing the following assets and had the business assume liabilities as indicated below:

Cash		$5,615.00
Inventory of Supplies		10.50
Accounts Receivable:		
R. A. Loft	$552.00	
D. V. White	379.00	931.00
Inventory of Merchandise		2,788.00

Accounts Payable:		
J. M. Vance	$660.00	
R. A. Adams	905.00	$1,565.00
Notes Payable		1,420.00

2. Purchased land and a store building from the Acme Realty Company for $12,500.00, paying $3,000.00 cash and assuming a mortgage of $9,500.00. The land was valued at $4,500.00 and the building at $8,000.00.
3. Purchased merchandise from B. A. Bower costing $2,100.00, paying $500.00 in cash, and the balance remaining on open account.
   Received a check from D. V. White in full of his account.
5. Cash sales to date amounted to $322.00.
   Purchased $10.00 of postage stamps for use in the business.
   Sent a check to J. M. Vance in full of account.
6. Sold merchandise as follows:

F. D. Richards	$218.00	Terms 2/10, n/30.
A. J. King	438.00	Terms $150.00 cash, balance on account.
F. L. Carter	655.00	Terms 60-day note.

8. Returned $85.00 of merchandise to B. A. Bower and received a credit memorandum.
10. Received a check from R. A. Loft in full payment of his account.
    An employee bought $1.00 of our postage stamps for cash.
    Purchased from the Commercial Supply Company for use in the business, terms on account:

Office desk and chair	$ 80.00
Typewriter	105.00
Office supplies	28.00

12. Paid bill of $30.00 for advertising in the *Daily News*.
    Paid bill for coal to heat the store, $15.00.
    F. D. Richards returned $25.00 worth of merchandise because of unsatisfactory quality and Moore allowed credit.
14. Received bill from Wilson Brothers for $77.00 for decorating the interior of the store.
    Paid salaries of $120.00 to P. L. Moore, and $45.00 to each of the three store clerks.
15. Purchased merchandise from A. R. Adler worth $857.00 and paid cash less a 2 per cent discount for cash payment.
    P. L. Moore took home merchandise costing $18.00 and marked to sell at $27.00.
    Unrecorded cash sales to date amounted to $695.00.
    Received a check from F. D. Richards in full of account.

Preserve your solution to this problem.

7. Journalize and post the transactions of Problem 5, Chapter VI.

8. Journalize and post the transactions of Problem 6, Chapter VI.

Chapter VIII. Books of Original Entry

1. Prepare a cash receipts journal and a cash disbursements journal and record the following transactions, assuming that possible entries in other journals have been made correctly:

December 1. J. P. Brewer began business, investing $5,200.00 cash.
Paid December rent to O. S. Picard, $140.00.

2. Purchased $2,345.00 of merchandise from T. L. Rosan for cash.

3. Paid cash to United Office Supply Company for the following items:

Office safe and furniture	$468.00
Stationery, postage, and miscellaneous office supplies	23.00

6. Sold $219.00 worth of merchandise to J. Snyder for cash.

7. Received a check for $319.48 from A. R. Miller in full of account for his purchase of November 29, which was subject to a 2 per cent discount for payment within 10 days.

9. Fred Maxwell, a customer, paid his $600.00, 60-day 6 per cent note. Amount of interest was $6.00.

10. Purchased an automobile truck for delivery purposes from the Austin Auto Company for $800.00 cash. Also paid $4.00 for gasoline for the truck.

11. Sent a check for $1,617.00 to A. L. Dawes for merchandise purchased December 3, subject to 2 per cent discount if paid within 10 days.

12. Paid a freight bill of the Pennsylvania Railroad for $12.00 for J. Otis, a customer. The freight should be charged to the account of J. Otis.

14. Sent a check for $15.00 to Edward Turner for defective merchandise sold him two days ago which he returned today.
J. P. Brewer withdrew $200.00 cash for Christmas shopping.

15. Sent a check to J. H. Hoffman, a creditor, in payment of a 60-day 6 per cent note for $260.00 maturing today with $2.60 interest.
Paid salaries for the half month:

Bookkeeper	$ 50.00
Store clerks	175.00
Truck driver	70.00

Unrecorded cash sales to date $875.00.

Rule and balance the cashbook. Set up the Cash account as it would appear in the ledger.

2. Make the necessary entries in the general journal to correct the errors made by the new bookkeeper on the books of J. L. Bernard:
   a. A $540.00 purchase of merchandise from Harvey Wilson on account was recorded in the sales journal.
   b. A sale to L. S. Dawson for $320.00 on account was entered in the sales book under the name of L. S. Douglas.
   c. Merchandise worth $398.00, purchased on open account from L. Harris, was returned and recorded in the general journal as follows:

L. Harris	398.00	
Sales Returns and Allowances		398.00

   d. An $18.00 purchase of store supplies from A. Johnson on account was entered in the purchase journal.
   e. Office furniture worth $225.00 purchased for cash was entered in the cashbook as a charge to Office Expenses.
   f. An $1,800.00 sale to J. W. Davis for which he gave his 30-day note was recorded as follows:

Purchases	1,800.00	
J. W. Davis		1,800.00

3. Prepare a cash receipts journal, a sales journal, and a general journal. Record the following transactions:

December 1. Cash balance $2,344.00.
2. Sold merchandise worth $430.00 to D. G. Stone, terms 2/10, n/30.
4. Burt and Jones installed a new electric sign on our store front several days ago. Today we received a bill for $300.00, terms on account.
Received a check from N. Rice to cover his $200.00 noninterest-bearing note maturing today.
An employee purchased, for $7.50 cash, merchandise marked to sell for $10.00.
7. Received a check for $490.00 from H. G. Kidd in payment of merchandise sold him 10 days ago subject to 2 per cent discount if paid within 10 days.
9. Received a check from H. F. Bond for his $700.00 note maturing today with $7.00 accrued interest.
11. Received $63.00 credit from L. R. Lewis for merchandise returned to him because of inferior quality.
15. Cash sales amounted to $976.00 for the first half of December.
Sold merchandise worth $662.00 to R. F. Doyle, terms $250.00 cash and the remainder on open account.
19. R. F. Doyle returned one-fifth the merchandise purchased on December 15 and was allowed full credit.

27. D. G. Stone sent a check in full of account.
29. A sale of merchandise to J. Engel for $317.00, terms 2/10, n/30, was entered today in the purchase journal and posted. The error was discovered later in the day. Make the necessary correction.
31. Cash sales amounted to $1,105.00 for the last half of December.

Rule and total the sales and cash receipts journals.
Set up the ledger accounts for Cash and Sales as they would appear after the entries of this problem were posted.

4. Prepare a cash disbursements journal, a purchase journal, and a general journal and record the following transactions for David Withum, who is engaged in the retail electrical appliance business:

December 2. Purchased appliances worth $952.00 from R. Alberts, terms 2/10, n/30.
3. Purchased store fixtures costing $2,000.00 from the Oliver Fixture Company. Paid half in cash and gave a 60-day noninterest-bearing note for the balance.
5. Received a bill for $76.00 from the United Advertising Company for December advertising. The bill was to be paid in January.
8. Purchased a delivery truck from R. J. Wood and Sons for $1,760.00. Terms $400.00 cash and a 60-day 6 per cent interest-bearing note for the balance.
Paid $15.00 for the truck license and $60.00 for insurance for one year.
10. Sent a check to R. Alberts in full of account.
14. Purchased electrical appliances from the Western Electric Company on account. Amount of the invoice $1,800.00.
17. Gave $72.00 worth of appliances to T. Mitchell in exchange for 11 tons of coal to be used in heating the store and office. T. Mitchell was debited in the sales journal.
20. Returned $75.00 worth of appliances to the Western Electric Company and received credit in full.
23. A thief stole $150.00 from the cash register.
27. Purchased appliances as follows:

Madison Manufacturers....	$850.00 on account.
Wallace Brothers..........	766.00 cash.
Gear and Company........	345.00 half in cash, balance on account.

Paid freight bill of $26.00 to Pennsylvania Railroad Company on the purchase from Madison Manufacturers.
29. Paid $100.00 for rent for the month of January.
31. David Withum, the proprietor, withdrew $130.00 cash to meet personal expenses.

Total and rule the cash disbursements and purchase journals. Set up the ledger accounts for Purchases and Cash as they would appear after the entries of this problem were posted.

5. Prepare a cash receipts journal, a cash disbursements journal, a sales journal, a purchase journal, and a general journal and record therein the following transactions of the business of F. W. Evans:

January 2. F. W. Evans began business, investing $6,700.00 cash, land valued at $3,000.00, a building valued at $15,000.00, and merchandise valued at $2,000.00. Evans owed T. Ryan $1,500.00 on open account and the business assumed the debt.

4. Sold $1,244.00 of merchandise to L. Colston, terms 2/10, n/30.

5. Purchased a desk for $115.00, a typewriter for $110.00, and stationery for $46.00 from the Empire Office Supply House. Terms on account.

6. Purchased merchandise from T. A. Vernon for $820.00, terms 2/10, n/30.

8. Colston returned $255.00 worth of merchandise as unsatisfactory, for which Evans gave him credit.

9. Sold the above defective merchandise for $205.00 cash to A. B. McKarl.

11. Purchased $3,000.00 of merchandise from the Excel Company, terms 3/5, n/30.

12. Sent a check to T. Ryan in full of account for the liability assumed by the business on January 2.

13. Evans, the proprietor, took $5.00 worth of the office stationery for his personal use.

14. Colston sent a check for the net amount due on his purchase of January 4.

Sent a check to T. A. Vernon for the purchase of January 6 less 2 per cent discount for payment within 10 days.

15. Paid salaries for the half month, $137.50.

Sold merchandise to H. H. McCann for $418.00. Received a 60-day noninterest-bearing note for $200.00 and the balance in cash.

Rule and total the sales and purchase journals. Rule, balance, and total the cash receipts and disbursements journals. Set up the ledger accounts for Cash, Purchases, and Sales as they would appear after the entries of the above problem were posted.

6. Prepare a sales journal, a purchase journal, a cash receipts journal, a cash disbursements journal, and a general journal and record therein the transactions of the R. D. Irwin Problem, 5, of Chapter VII. Make the current postings. Rule and total the sales and purchase journals. Rule, balance, and total the cash receipts and disburse-

ments journals. Make the four total postings. Preserve the solution of this problem.

7. Prepare a sales journal, a purchase journal, a cash receipts journal, a cash disbursements journal, and a general journal and record therein the transactions of the P. L. Moore Problem, 6, of Chapter VII. Make the current postings. Rule and total the sales and purchase journals. Rule, balance, and total the cash receipts and disbursements journals. Make the four total postings. Preserve the solution of this problem.

Note to Instructors: Practice set *1A* or *1B*, both of which appear after the problems of Chapter XIII, may be started at this point.

Chapter IX. The Trial Balance

1. Prepare a trial balance of:
   a. Problem 6, Chapter VIII.
   b. Problem 7, Chapter VIII.

2. From the following account balances set up a trial balance as of December 31, 19A, for the business of L. K. Carson:

L. K. Carson, Capital	$ 6,882.00
Land	1,250.00
Building	15,000.00
Rent Income	940.00
Fixtures	2,000.00
Inventory of Merchandise, January 1, 19A	5,766.00
Cash	983.00
Accounts Receivable	4,432 00
Accounts Payable	2,376.00
Bank Loans	1,400.00
Notes Payable	4,110 00
Purchase Returns and Allowances	677.00
Sales	63,839.00
Transportation Out	216.00
Purchases	51,522.00
Mortgage Payable	7,000.00
Mortgage Interest Expense	420.00
Transportation In	456.00
Sales Returns and Allowances	590.00
Repairs to Building	75.00
Purchase Discounts	648.00
Salesmen's Salaries	2,240.00
Interest Expense	98.00
Telephone and Telegraph	64.00
Office Salaries	1,250.00

Store Expenses	$ 205.00
Sales Discounts	339.00
Miscellaneous General and Administrative Expenses	870.00
Prepaid Insurance	96.00

3. Although the journal entries were made correctly, the bookkeeper made the following errors in posting to the ledger:
   a. Failed to post a credit of $110.55.
   b. Posted a debit of $47.32 as a debit of $74.32.
   c. Posted a debit of $89.21 as a credit.
   d. Posted a debit of $55.60 as a credit of $60.55.
   e. Posted a credit of $1,960.00 as a credit of $19.60.
   How much would each error throw the trial balance out of balance? How much would the trial balance be out of balance as the result of all of the above errors?

4. *a.* How much, if at all, would each of the following errors throw a trial balance out of balance?
   (1) A receipt of cash from a customer on account in the amount of $126.00 was not posted to his account.
   (2) A purchase of goods for $78.00 on account was posted to the account payable as a credit of $7,800.00.
   (3) A credit to a customer's account for $76.13 was posted as a debit of $71.63.
   (4) A purchase of goods on account worth $192.94 was posted as a debit to the creditor's account.
   (5) The drawing account of the proprietor was debited with $613.50 instead of $631.50.
   b. What test could be applied, if any, to assist in the location of each of these errors?

5. A trial balance of balances has a debit total of $146,394.83 and a credit total of $147,567.83. A check of the work reveals that there were no errors in journalizing, but certain ledger items and trial balance figures are incorrect. You are asked to indicate the effect of each error on the debit total or the credit total and to show the correct trial balance total.
   a. In the trial balance the amount of Sales was $78,724.00. It should have been $78,274.00.
   b. A cash receipt of $125.00 from a customer who owed us $425.00 was not posted to his account.
   c. The Furniture and Fixtures account was debited in the ledger with $185.00 instead of $1,850.00.

d. A sales return of $62.00 was posted to the debit side of the account receivable. There was a debit balance in the account receivable of $300.00 prior to posting this transaction.
e. A credit purchase of $630.00 from R. E. Denny, to whom we already owed $750.00, was debited to his account as $63.00.

6. A complete list of the account balances of the business of J. W. Johnson as of December 31, 19A follows:

Cash	$ 6,289.00
Accounts Receivable	5,921.00
Sales	73,749.00
Store Equipment	9,440.00
Delivery Expenses	2,020.00
Notes Receivable	1,560.00
Rent Expense	5,000.00
Notes Payable	880.00
Purchases	44,132.00
Sales Returns and Allowances	1,015.00
Accounts Payable	3,770.00
Inventory of Merchandise	7,265.00
Store Salaries	4,352.00
Transportation In	611.00
Heat and Light	788.00
J. W. Johnson, Capital	17,620.00
Misc. General and Administrative Expenses	500.00
Office Salaries	3,000.00
Interest Income	82.00
Sales Discounts	776.00
Insurance	125.00
J. W. Johnson, Drawing	400.00
Purchase Discounts	568.00
Purchase Returns and Allowances	925.00
Dividends Received	200.00
Bright Paint Company Stock	4,300 00
Miscellaneous Selling Expenses	300.00

Required:
a. A trial balance dated December 31, 19A.
b. The amount the trial balance would be out of balance if Heat and Light $788.00 were incorrectly placed in the
(1) Credit column for $788.00.
(2) Debit column as $878.00.
(3) Debit column as $7.88.
(4) Credit column as $7.88.

7. *a.* Journalize the following transactions, using five books of original entry, and post to a ledger:

January 2. Richard Baker began a wholesale tobacco business, investing $11,200.00 cash, inventory of merchandise worth $3,700.00, and furniture and fixtures valued at $2,000.00.
Rented a store building and paid $210.00 rent for the month.
3. Bought merchandise for $2,645.00 cash.
4. Bought an office desk and typewriter for $215.00 from the Tri-State Office Supply Company, terms 30 days net.
5. Sold merchandise for $862.50 cash.
6. Bought merchandise from W. G. Keene on account, $462.50.
Sold merchandise to K. C. Bates for $1,140.00, terms 2/10, n/30.
8. Sold merchandise for $389.70 cash.
9. Returned $44.00 of merchandise to W. G. Keene and received full credit for the same.
10. Richard Baker, the proprietor, withdrew $635.00 to meet personal expenses.
11. Paid a bill of $22.50 for stationery and office supplies received today.
13. Bought merchandise from G. K. Gordon for $225.00, terms 2/10, n/30.
15. Sent a check to the Tri-State Office Supply Company in full of account.
Paid salaries for the half month, $170.00.
16. Sold merchandise to E. W. Lowell for $575.40, terms 2/10, n/30.
17. Received a check from K. C. Bates in full of account, less 2 per cent discount for payment within 10 days.
19. Received a 30-day noninterest-bearing note for $121.00 from F. J. Tolston for merchandise sold him today.
22. Paid a coal bill in cash, $110.00.
23. Sold merchandise to F. Patterson for $305.00, terms 2/10, n/30.
25. Purchased merchandise from A. Lawson for $1,255.00, giving a check for $255.00 and a 60-day note for the balance.
26. F. Patterson returned $24.00 of merchandise purchased on January 23 and received full credit.
27. The business contributed $55.00 cash to the American Red Cross.
30. Sold merchandise for $1,080.00 cash.
31. Paid the following expenses:

Bell Telephone Company for telephone service	$ 11.50
Public Electric Company for electric service	8.00
Salaries for the half month	170.00

b. Prepare a trial balance as of January 31, 19A.

c. Prepare a statement of profit and loss for the month of January 19A assuming that the inventory of merchandise on January 31, 19A was $4,658.00.

d. Prepare a balance sheet as of December 31, 19A.
e. Prepare an analysis of proprietorship.

Chapter X. Capital and Revenue Expenditures

1. Indicate whether each of the following cash disbursements should be capitalized or charged to revenue:
   a. A student paid tuition to attend college. This tuition was paid out of savings made by the student out of earnings.
   b. Paid interest on money borrowed to construct a dam
      (1) During the time the dam was under construction.
      (2) Following construction.
   c. Paid off a mortgage.
   d. Paid the interest on a mortgage.
   e. A prizefighter paid $100.00 to have teeth replaced that were knocked out in a fight.
   f. A railroad eliminated a grade crossing by an overhead structure. The change was necessitated by the growth of the community although the overhead structure did not increase the revenue of the railroad or the possible resale value of its property.

2. Indicate whether each of the following cash disbursements should be capitalized or charged to revenue:
   a. Purchased land and the dilapidated four-story structure at the corner of X and Y Streets for $10,000.00, paying $4,000.00 for the land and $6,000.00 for the building.
   b. Paid $400.00 fees to an architect for plans to remodel the structure mentioned in *a* into an apartment house.
   c. Paid bills of $14,000.00 for work done in remodeling the building.
   d. During the period of remodeling property taxes amounted to $380.00, of which $180.00 applied to the land.
   e. Two months after the property was remodeled, the top-floor apartments, which had remained vacant, were repapered at a cost of $80.00 to satisfy the wishes of the new tenants.
   f. Paid $300.00 to install an incinerator for the property.
   g. Taxes for the first year following remodeling amounted to $450.00. The bill was paid immediately.
   h. Three years later the property was completely repainted at a cost of $700.00.
   i. To comply with an ordinance recently passed by City Council, an additional fire escape was erected at a cost of $800.00.

   What is the total amount now charged to the Building account?

3. On January 1, 19A, the X Company purchased land at a cost of $3,500.00 and a building at a cost of $11,500.00, paying cash $9,000.00 and giving a 6 per cent mortgage for the balance.

The cost of reconditioning the building was $1,500.00 and was paid in cash.

The mortgage interest was paid for the 12 months, and on December 31, 19A, the holder of the mortgage was given a check for $1,000.00 to retire part of the indebtedness.

Required:

a. The total of the cash disbursements for the year.
b. The total of the capital expenditures for the year.
c. The total of the revenue expenditures for the year.

4. On January 1, 19A, the Y Company completed an addition to its garage to accommodate two more delivery trucks. The bill from the carpenter for labor, materials, and supplies for the addition amounted to $1,200.00. The carpenter was given $800.00 cash and a 60-day 6 per cent interest-bearing note for the balance. Painting all the garages cost $180.00, of which $120.00 applied to the old garage. A check was given the painters. The note given the carpenter was paid off when due, including $4.00 interest.

Required:

a. The total of the cash disbursements.
b. The total of the capital expenditures.
c. The total of the revenue expenditures.

5.

September 6, 19A.	Paid $50.00 to a lawyer to examine the title to a piece of real estate. (Charge Land Option.)
	Paid $100.00 for a 6-month option to buy the property. (Charge Land Option.)
February 23, 19B.	Purchased the property for $18,000.00, giving a 10-year 5 per cent mortgage for $9,000.00 and a check for $8,900.00; the option price was accepted as part of the purchase price.
April 29, 19B.	Received $400.00 from a dealer in building materials for an old building on the property which he razed.
July 1, 19C.	Paid a sewer assessment of $300.00 that was levied on the property.

Record the above transactions in two-column general journal form.

6. On April 8, 19A, a young inventor received a patent on an electrically controlled filler of liquids. On July 12, 19A, the patent was sold to a large can company for $10,000.00 and a royalty on each filling machine produced by them.

The can company spent $3,500.00 during the next eight months to perfect title to the patent and to make certain improvements in the design of the machine.

In 19C, after thoroughly examining the claims of a competitor, the can company brought suit claiming patent infringement. Legal and court fees of $3,200.00 were paid in cash. The competitor was compelled to pay $2,500.00 damages.

Shortly after the successful suit in 19C, the can company asked royalties of the competitor on each machine he had marketed that contained features covered by the patent. The competitor agreed to pay $50.00 royalty for each of the 800 machines sold by him rather than face another suit. The $40,000.00 check was received.

Required:

a. The entries to record the above facts on the books of the can company.

b. The Patent account in the ledger.

Chapter XI. Adjusting the Books

1. The Universal Publishing Company began business January 1, 19A. During the year it received $48,000.00 cash from subscribers covering one-, two-, or three-year subscriptions to a magazine. On December 31, 19A, there were subscriptions collected in advance of $7,000.00.

   Make the adjusting journal entry as of December 31, 19A:

   a. Assuming the bookkeeper credited Subscriptions Earned as the cash was received.

   b. Assuming the bookkeeper credited Subscriptions Collected in Advance as the cash was received.

2. *a.* The December 31, 19A trial balance shows Prepaid Insurance $800.00. An examination of the insurance policy shows that it is a five-year policy taken out two years before.

   Required:

   (1) The amount of cash paid for the policy two years ago.

   (2) The insurance expense for the calendar year 19A.

   (3) The amount of prepaid insurance in the December 31, 19A balance sheet.

   (4) The adjusting journal entry to be made as of December 31, 19A.

   b. What adjusting journal entry should be made as of December 31, 19A if the policy cost $800.00 on January 1, 19A with a four-year life and the records disclose that the bookkeeper debited Insurance?

3. The X Company started business January 1, 19A. During the year it took out four insurance policies and charged the premiums to Prepaid Insurance.

Policy number	Date effective	Term, years	Premium paid
1	January 1	3	$600.00
2	April 1	1	212.00
3	July 1	2	408.00
4	October 1	1	212.00

Required:

a. The amount of insurance expired by December 31, 19A.

b. The prepaid insurance as of December 31, 19A.

c. The adjusting journal entry necessary as of December 31, 19A.

d. If policies No. 2 and No. 4 were renewed at the same premium cost in 19B, what was the amount of insurance expired for the year 19B?

4. During the year 19A $482.00 in cash was received for interest while $230.00 was paid for interest. On December 31, 19A accrued interest on notes receivable amounted to $56.00. Included in the Interest Income account was an item of $17.00 representing interest collected in advance. Accrued interest on notes payable was $12.00 while interest paid in advance on notes payable to banks amounted to $20.00.

a. How much interest was earned in 19A? Present all figures.

b. How much was the interest expense for 19A? Present all figures.

c. Prepare the proper adjusting journal entries.

5. On January 1, 19A, the X Company rented a piece of land for five years to the Y Company. The Y Company paid the rent for five years in advance and thereby obtained a considerable reduction. The December 31, 19B unadjusted trial balance of the X Company showed Rent Collected in Advance of $4,320.00.

Required:

a. The amount of cash received from Y Company on January 1, 19A.

b. The rental income for 19B.

c. The amount of rent collected in advance in the December 31, 19B balance sheet.

d. The adjusting journal entry on the books of the X Company as of December 31, 19B.

e. If the unadjusted trial balance as of December 31, 19A had shown Rental Income of $4,320.00 and the contract was to run for four years from January 1, 19A, what adjusting journal entry would be necessary as of December 31, 19A?

6. In a certain trial balance the following account balances appear:

Advertising Expense..	$ 860.00	Purchase Returns and Allowances.........	$ 340.00
Prepaid Insurance.....	405.00	Inventory of Merchandise................	2,220.00
Salaries..............	9,300.00	Transportation In.....	250.00
Rental Income........	3,100.00		
Purchases............	32,000.00		

The adjusting data are as follows:

Accrued Rent Receivable	$ 188.00	One-third the Prepaid Insurance expired.	
Prepaid Advertising....	75.00	New Inventory of Merchandise.............	3,150 00
Accrued Salaries Payable	320.00		
Salaries Paid in Advance	400.00		
Rent Collected in Advance...............	80.00		

a. What figure or figures should appear in the balance sheet for each case?

b. What figure or figures should appear in the statement of profit and loss for each case?

c. Make the necessary adjusting journal entry or entries for each case.

7. The bookkeeper of the Hook and Eye Company arrived at a net profit of $4,866.20 for the year 19A but failed to consider the following items:

Inventory of Supplies.....	$ 92.00	Rent Received in Advance	$145.00
Accrued Interest Receivable..................	47.00	Prepaid Interest on Notes Payable...............	48.50
Accrued Salesmen's Commissions..............	212.00	Reserve for Bad Debts....	615.00

What was the correct net profit for the year? Submit your figures.

8. What amount or amounts would appear in the December 31, 19A trial balance prior to adjustment, if the following figures were found in the balance sheet as of December 31, 19A, and the statement of profit and loss for 19A?

Balance Sheet		Statement of Profit and Loss	
a. Accrued Interest Receivable...........	$ 46.00	Interest Income........	$385.00
Unearned Interest....	12.00		
b. Accrued Interest Payable..............	30.00	Interest Expense.......	298.00
Prepaid Interest......	45.00		

c. Buildings .... $18,000.00 Depreciation of Buildings $ 720.00
Reserve for Depreciation of Buildings... 2,880.00

9. The trial balance of the Quicko Company as of December 31, 19E, showed:

Prepaid Insurance.... $784.15 Insurance Expense.... $1,292.60

The ledger account Prepaid Insurance had not been debited or credited since December 31, 19D, but an analysis of the account showed the following items as making up the balance of $784.15:

Policy No.	Date of policy	Term, years	Total premium	Prepaid as of 12/31/19D
B1355	7/1/19A	5	$ 650.00	$195.00
S7149	12/31/19B	3	459.45	153.15
A3880	1/1/19D	5	263 75	211 00
A2437	1/15/19D	1	96 00	4 00
F1738	3/31/19D	1	884 00	221 00
			$2,353 20	$784 15

The Insurance Expense account disclosed:

1/1/19E Paid-for Policy A2963 dated 1/15/19E for 1 year....................................	$ 87.25
3/1/19E Paid-for Policy F3302 dated 3/31/19E for 1 year..	793.35
12/15/19E Paid-for Policy S9061 dated 12/31/19E for 3 years............................	412 00
	$1,292.60

a. Compute, in schedule form, the amount of prepaid insurance as of December 31, 19E.
b. Give the necessary entry or entries to adjust these accounts as of December 31, 19E.
c. What is the insurance expense for the year 19E?
d. Is the bookkeeper for the company following the most acceptable accounting practice in the operation of these two accounts? Explain briefly.

10. A. B. Carroll claims that his business earned a net profit of $4,683.00 during the year 19A. He has not adjusted his books. You disagree with him upon finding
a. Accrued property taxes of $250.00 were not considered.
b. The inventory of merchandise as of January 1, 19A was not considered. It amounted to $3,150.00.
c. Accrued interest on United States bonds amounting to $96.00 was not considered.
d. A five-year insurance policy purchased October 1, 19A for $160.00 was charged to Insurance and considered an expense of the year.

e. Salaries amounting to $600.00 were paid on December 31, 19A, charged to Salaries, and considered an expense of the year. Carroll included in this payroll $300.00 for salaries for the first half of January 19B, thinking his employees would appreciate such an advance to meet their Christmas obligations.

f. Depreciation of 2 per cent on a building that cost $8,000.00 and depreciation of 10 per cent on equipment that cost $1,000.00 were not considered.

Required:

a. Make the adjusting entries as of December 31, 19A for the above data.

b. Submit figures to show the proper net profit or loss for the year 19A.

11. The following accounts were taken from the ledger of James F. Starr as of December 31, 19A:

JAMES F. STARR

TRIAL BALANCE, DECEMBER 31, 19A

Cash	$ 6,240.00	
Accounts Receivable	11,235.00	
Reserve for Bad Debts		$ 37.00
Notes Receivable	3,400.00	
Merchandise Inventory, 1/1/19A	38,259.00	
Prepaid Insurance	500.00	
Land	7,000.00	
Building	15,000 00	
Reserve for Depreciation of Building		2,500.00
Auto Truck	1,200.00	
Furniture and Fixtures	1,000.00	
Reserve for Depreciation of Furniture and Fixtures		165.00
Accounts Payable		7,830.00
Notes Payable		770.00
James F. Starr, Capital		56,620.00
James F. Starr, Personal	950.00	
Sales		105,697.00
Purchases	76,200.00	
Salesmen's Commissions	6,835.00	
Miscellaneous Selling Expenses	559.00	
Delivery Expenses	1,416.00	
Office Salaries	1,830 00	
Office Expenses	757.00	
Sales Discounts	1,452.00	
Interest Income		214.00
	$173,833.00	$173,833.00

Information gathered from other sources disclosed the following facts as of December 31, 19A:

Merchandise inventory on December 31, 19A was $21,044.00.
Prepaid insurance $360.00.
Accrued property taxes for the year amounted to $708.00.
Interest received in advance on a note receivable was $10.00.
A reserve for bad debts equal to 3 per cent of the accounts receivable was estimated to be adequate.
Depreciation was estimated at 5 per cent annually on the building and furniture and fixtures, and at 25 per cent annually on the auto truck that was purchased April 30, 19A.

Prepare the necessary adjusting journal entries, the balance sheet as of December 31, 19A, and the statement of profit and loss for the year 19A. (Use T accounts, if necessary, to aid in the solution of this problem.)

12. The following information is disclosed by the books of T. L. Shaw as of June 30, 19A, after the first six months of operation:

T. L. SHAW

TRIAL BALANCE, JUNE 30, 19A

Cash	$ 6,662.00	
Accounts Receivable	9,387.00	
Notes Receivable	4,100.00	
Inventory of Merchandise, 1/1/19A	19,455.00	
Furniture and Fixtures	1,870.00	
Accounts Payable		$ 15,440.00
T. L. Shaw, Capital		18,884.00
T. L. Shaw, Personal		1,000 00
Sales		76,807.00
Sales Returns and Allowances	975.00	
Purchases	59,321.00	
Transportation In	446.00	
Store Salaries	4,600.00	
Store Expenses	1,050.00	
Advertising	662.00	
Transportation Out	274.00	
Rent Expense	2,100.00	
Office Salaries	1,600.00	
Office Expenses	532.00	
Discount on Purchases		854.00
Interest Income		49.00
	$113,034.00	$113,034.00

Information gathered from other sources disclosed the following facts as of June 30, 19A:

Inventory of merchandise, June 30, 19A	$16,022.00
Interest accrued on notes receivable	13.00
Rent paid in advance for one month	300.00
Store salaries accrued for one week	175.00
A reserve for bad debts should be provided equal to ½ of 1 per cent of net sales.	
A reserve for depreciation should be provided on furniture and fixtures at 10 per cent annually of cost.	

Prepare the necessary adjusting journal entries, the balance sheet as of June 30, 19A, and the statement of profit and loss for the first half of the year 19A. (Use T accounts, if necessary, to aid in the solution of this problem.)

Chapter XII. Closing the Books

1. *a.* From the following facts that were selected from an adjusted trial balance, December 31, 19A, prepare the closing journal entries:

Freight Out	$ 237.00	Accrued Interest Receivable	$ 36.00
Sales	89,665.00	Advertising	1,204.00
Bad Debts	921.00	Store Salaries	4,620.00
Discount on Sales	1,054.00	Delivery Truck Expenses	515.00
Cost of Goods Sold	65,918.00	Office Salaries	2,800.00
Accounts Payable	5,752.00	Interest on Mortgage	540.00
Interest Income	214.00	A. C. Davis, Capital	20,330.00
Store Expenses	625.00	Accrued Interest on Mortgage	60.00
Salesmen's Commissions	3,400.00	Inventory of Advertising Literature	92.00
Reserve for Bad Debts	970.00		
Prepaid Salaries	225.00		
Office Expenses	710.00		

NOTE: The above items are not all the items that appeared in the adjusted trial balance; some real accounts were omitted, others were included.

b. Set up the Profit and Loss account as it would appear in the ledger after the closing entries were posted.

2. *a.* From the following facts that were selected from an adjusted trial balance, December 31, 19A, prepare the closing journal entries:

Bad Debts	$ 180.00	Cost of Goods Sold	$54,180.00
Purchase Discounts	195.00	Depreciation of Equipment	225.00
Sales	68,845.00	Reserve for Depreciation of Equipment	3,480.00
Office Expenses	350.00	Sales Returns and Allowances	322.00
Advertising	240.00		
Interest Expense	180.00		
Interest Earned	50.00		

Salaries	$ 6,135.00	Inventory of Merchandise, 12/31/19A	$ 6,880.00
Store Expenses	1,125.00	Property Taxes	300.00
Rent Expense	970.00	Accrued Taxes Payable	300.00
Insurance (Expired)	135.00	Prepaid Insurance	165.00
Reserve for Bad Debts	220.00		
D. E. Crawford, Capital	18,960.00		
D. E. Crawford, Drawing (Dr.)	400.00		

NOTE: The above items are not all the items that appeared in the adjusted trial balance; some real accounts were omitted, others were included.

b. Set up the Profit and Loss account as it would appear in the ledger after the closing entries were posted.

c. What balance would be in D. E. Crawford's Capital account in the postclosing trial balance?

3. *a.* From the following facts which were selected from an adjusted trial balance prepared as of December 31, 19A, you are asked to prepare closing journal entries:

Sales	$67,423.00	Reserve for Bad Debts	$380.00
Interest Earned	127.50	Reserve for Depreciation of Equipment	862.75
Prepaid Insurance	416.75	Inventory of Store Supplies	120.00
Purchase Discounts	973.00	Store Supplies	630.00
John Adams, Capital	18,750.00	Depreciation of Equipment	265.00
Bad Debts	350.00	Taxes	330.00
Delivery Expenses	680.00	Heat, Light, and Water	350.00
Rent Expense	4,800.00	Interest Expense	115.00
Salaries	9,200.00		
Insurance	315.00		
Cost of Goods Sold	43,200.00		
Inventory of Merchandise	3,200.00		

NOTE TO STUDENT: The above items are not all the items that appeared in the adjusted trial balance; certain of the real accounts have been omitted. No personal or drawing account was kept for the proprietor.

b. Set up the ledger account for Profit and Loss and post the figures from the entries you have made.

4. *a.* From the following facts that were selected from an adjusted trial balance prepared as of December 31, 19A, you are asked to prepare closing journal entries:

Sales	$74,854.00	Depreciation of Building	$ 1,000.00
Building	20,000.00	Sales Returns and Allowances	1,150.00
Sales Supplies	680.00	Purchase Discounts	560.00
Salaries	11,930.00	Accrued Salaries Payable	320.00
Advertising	512.00		
Heat, Light, and Water	446.00		
Taxes	785.00		

Insurance	$ 542.00	Miscellaneous Office Expenses	$ 205.00
Delivery Expenses	753.00	George Myers, Capital	22,500.00
Depreciation of Equipment	225.00	Interest Expense	344.00
Cost of Goods Sold	41,560.00	Inventory of Merchandise, 12/31/19A	5,650.00
Reserve for Depreciation of Building	4,000.00		

NOTE TO STUDENT: The above items are not all the items that appeared in the adjusted trial balance; certain of the real accounts have been omitted. No personal or drawing account was kept for the proprietor.

b. Set up the ledger account for Profit and Loss and post the figures from the entries you made.

5. The following trial balance was taken from the ledger of Joseph Fell as of December 31, 19A:

JOSEPH FELL

TRIAL BALANCE, DECEMBER 31, 19A

Cash	$ 7,300.00	
Accounts Receivable	3,700.00	
Notes Receivable	1,000.00	
Inventory of Merchandise, January 1, 19A	8,500.00	
Prepaid Advertising	500.00	
Land	4,250.00	
Building	8,000.00	
Reserve for Depreciation of Building		$ 480.00
Furniture and Fixtures	1,000.00	
Reserve for Depreciation of Furniture and Fixtures		150.00
Delivery Equipment	720.00	
Accounts Payable		3,000.00
Mortgage Payable		7,000.00
Joseph Fell, Capital		15,850.00
Sales		50,000.00
Purchases	29,250.00	
Sales Salaries	6,500.00	
Commissions	100.00	
Delivery Expenses	425.00	
Office Salaries	3,800.00	
Supplies	260.00	
Interest Income		125.00
Interest on Mortgage	210.00	
Sales Discounts	1,090.00	
	$76,605.00	$76,605.00

Supplementary data:

Inventory of merchandise, December 31, 19A	$9,780.00
Supplies on hand, December 31, 19A	60.00
Accrued interest on notes receivable	30.00

Prepaid advertising	$ 0
Accrued property taxes payable	360.00
Sales salaries advanced to a salesman on his 19B salary	100.00
Interest on the 6 per cent mortgage was last paid July 1, 19A.	
A reasonable reserve for bad debts is 2 per cent of the accounts receivable.	
The store building is being depreciated $240.00 per annum, and furniture and fixtures $50.00 per annum.	
Last year the Delivery Equipment account was reduced $280.00 because of depreciation but no Reserve for Depreciation account was set up. This year a similar amount should be charged off as depreciation, but you should show the entire $560.00 in a suitable reserve account.	
It is just discovered that John Jensen, a customer who returned $120.00 of merchandise last month, was not given credit. By error the credit was made to Joseph Johnson.	

Required:

a. Prepare the necessary adjusting and correcting entries.

b. Prepare the closing journal entries.

6. The following items constitute the complete adjusted trial balance of the books of Donald Shuler as of December 31, 19A:

Cash	$ 3,459.00	Delivery Expenses	$ 381.00
Sales	36,482.00	Building	12,500.00
Donald Shuler, Capital	17,687.00	Accounts Payable	2,490.00
Cost of Goods Sold	19,521.00	Reserve for Depreciation of Delivery Truck	550.00
Delivery Truck	1,100.00	Accrued Salaries Payable	225.00
Reserve for Bad Debts	85.00	Prepaid Insurance	360.00
Advertising	366.00	Sales Returns and Allowances	918.00
Purchase Discounts	274.00	Prepaid Office Salaries	75.00
Accounts Receivable	4,855.00	Depreciation of Building	400.00
Notes Payable	620.00	Insurance	90.00
Telegraph and Telephone	93.00	Sales Supplies	304.00
Interest Expense	180.00	Sales Discounts	585.00
Donald Shuler, Drawing (Dr.)	425.00	Accrued Interest Payable	41.00
Office Salaries	2,400.00	Prepaid Advertising	39.00
Inventory of Supplies	32.00		
Land	2,800.00		
Heat and Light	141.00		
Notes Receivable	885.00		

Reserve for Depreciation of Building....	$ 2,550.00	Depreciation of Delivery Truck..........	$ 275.00
Interest Income.......	126.00	Bad Debts...........	75.00
Depreciation of Furniture and Fixtures...	60.00	Furniture and Fixtures	1,200.00
Accrued Interest Receivable............	16.00	Reserve for Depreciation of Furniture and Fixtures............	200.00
Sales Salaries.........	4,003.00		
Inventory of Merchandise	3,792.00		

Required:

a. T accounts with balances as stated in the problem.

b. The closing journal entries.

c. The posting of the closing journal entries to the T accounts.

d. A statement of profit and loss for the year ended December 31, 19A.

e. A balance sheet as of December 31, 19A.

f. A postclosing trial balance.

7. *a.* From the following trial balance taken from the ledger of W. M. Buckner as of December 31, 19A and the adjusting data, prepare the adjusting and closing journal entries:

W. M. BUCKNER

TRIAL BALANCE, DECEMBER 31, 19A

Cash....................................	$ 1,026.00	
Inventory of Merchandise, January 1, 19A.......	5,830.00	
Purchases..................................	60,922.00	
Sales......................................		$72,439.00
Prepaid Insurance..........................	450.00	
Interest Income............................		30.00
Accounts Receivable........................	7,485.00	
Accounts Payable...........................		4,738.00
United States Government Bonds..............	2,000.00	
Interest on United States Bonds..............		45.00
Purchase Returns and Allowances.............		676.00
Transportation In..........................	329.00	
Salesmen's Salaries........................	5,300.00	
Office Salaries............................	2,500.00	
Salesmen's Traveling Expenses................	1,300.00	
Rent Expense...............................	1,600.00	
Advertising................................	818.00	
Delivery Expenses..........................	641.00	
Sales Discounts............................	557.00	
Delivery Equipment..........................	2,200.00	
W. M. Buckner, Capital......................		15,030.00
	$92,958.00	$92,958.00

Information not shown on the books on December 31, 19A was:

Inventory of merchandise	$6,105.00
Accrued interest on United States bonds	15.00
Unexpired insurance	320.00
Unpaid salesmen's traveling expenses	122.00
A reserve for bad debts equal to 2 per cent of accounts receivable is considered reasonable.	
A reserve for depreciation of delivery equipment at the rate of 25 per cent annually should be provided.	

b. Prepare a postclosing trial balance.

8. The following items are all those found in a trial balance of the business of E. V. Malloy taken immediately after posting the adjusting entries as of December 31, 19A:

Investment—Air Transport Stock	$ 10,000.00	Interest on Mortgage	$ 450.00
Reserve for Bad Debts	165.75	Accounts Receivable	21,050.00
E. V. Malloy, Capital	55,200.00	Notes Receivable	5,000.00
Cash Dividends Received	300.00	Interest Expense	237.50
Reserve for Depreciation of Building	5,608.80	Property Taxes	650.00
Reserve for Depreciation of Furniture and Fixtures	843.75	Sales Discounts	1,500.00
Furniture and Fixtures	2,812.50	Office Expenses	2,000.00
Cost of Goods Sold	202,500.00	Prepaid Insurance	350.00
Accrued Interest Payable	450.00	Cash	10,250.00
Depreciation of Building	1,869.60	Sales	241,750.00
Depreciation of Furniture and Fixtures	281.25	Land	10,000.00
Commissions Receivable	250.00	Transportation Out	3,100.00
Interest Collected in Advance	35.00	Sales Returns	5,000.00
Accrued Interest Receivable	44.00	Interest Income	159.80
Merchandise Inventory	14,850.00	Selling Expenses	3,400.00
		Insurance	250.00
		Commissions Earned	250.00
		Bad Debts	115.75
		Prepaid Salaries	12.50
		Prepaid Rent	45.00
		Accounts Payable	24,250.00
		Rent Expense	555.00
		Salaries	15,700.00
		Building	46,740.00
		Mortgage Payable	30,000.00

Required:

a. The closing journal entries.

b. T accounts with balances as stated in the problem.

c. The posting of the closing journal entries to the T accounts.

d. A statement of profit and loss for the year ended December 31, 19A.
e. A balance sheet.
f. A postclosing trial balance.

Chapter XIII. The Work Sheet—Its Construction and Use

1. Enter the following accounts with their balances on a ten-column work sheet. These are only a few of the accounts of a business as of December 31, 19A:

Interest on Mortgage Payable	$300.00
Interest Income	450.00
Prepaid Insurance	320.00

Make adjustments on the work sheet for the following facts:

Accrued interest on a customer's note	$ 90.00
Interest collected in advance	20.00
Prepaid insurance, December 31, 19A	130.00
A $10,000.00 mortgage was signed April 1, 19A, which provided for interest at 6 per cent per annum payable each six months.	

Complete the work-sheet extensions. The columns need not be totaled.

2. From the facts of Problem 8 in Chapter XII you are asked to set up the last six columns of a work sheet. Rule, total and balance.

3. Set up a ten-column work sheet and show how the following data would appear in it. Necessary figures should be extended to all columns affected by them. The columns need not be totaled. The trial balance taken as of December 31, 19A, shows:

Rental Income	$1,960.00
Interest Expense	345.00
Insurance	275.00
Office Supplies	232.00
Interest Income	348.00

Adjustments are necessary for the following items:

Unearned rent	$ 140.00
Prepaid insurance	120.00
Office supplies on hand	25.00
Accrued interest on a note payable	35.00
Accrued interest on a note receivable	45.00
Interest collected in advance	20.00
Interest prepaid on a note payable	15.00

4. Enter the following accounts with their balances on a ten-column work sheet. These are only a few of the accounts of a business as of December 31, 19A.

Inventory of Merchandise, January 1, 19A......	$ 3,445.00
Purchases..................................	56,982.00
Transportation In..........................	466.00
Purchase Returns and Allowances.............	575.00
Accounts Receivable........................	15,800.00
Reserve for Bad Debts (credit balance).........	50.00

Make adjustments on the work sheet for the following facts:

Inventory of merchandise, December 31, 19A... $ 4,565.00
A reserve for bad debts equal to 3 per cent of the accounts receivable is considered reasonable.

Extend the necessary figures. The columns need not be totaled.

5. The following items were taken from their proper columns in the balance sheet section of a work sheet:

William Jones, Capital...	$24,350.00
William Jones, Drawing....	750.00
Net Loss for the Twelve Months...	2,325.00
Reserve for Bad Debts....................	410.00
Reserve for Depreciation of Building...........	3,600.00
Inventory of Coal........................ ..	30.00
Accrued Salaries Payable......	415.00

The correct total of each of the balance sheet columns was $125,-840.00.

Required:

a. The correct total of the postclosing trial balance. Submit your computation.

b. The balance of William Jones, Capital account in the postclosing trial balance.

c. Assuming there were no reserves other than the two stated above, what was the total of the assets in the formal balance sheet? Submit your computation.

d. If the Reserve for Bad Debts had by error been placed in the credit profit and loss column, would the work sheet have balanced? Why or why not?

e. Was the amount shown for the Reserve for Depreciation of Building in the balance sheet column the same, more, or less than the amount shown for the same account in

(1) The unadjusted trial balance column?

(2) The adjusted trial balance column?

f. Included in the Accrued Salaries Payable were wages of the fireman. Under what conditions would the Heat and Light expense in the debit profit and loss column have been less than the amount shown for Heat and Light in the unadjusted trial balance debit column?

6. The following facts are a complete listing of all the items appearing in the adjusted trial balance prepared for the business of G. A. Royal as of December 31, 19A:

Reserve for Depreciation of Building....	$ 324.00	Sales Returns and Allowances...........	$ 870.00
Reserve for Depreciation of Furniture and Fixtures........	150.00	Cost of Goods Sold....	20,650.00
Reserve for Depreciation of Delivery Truck.............	555.00	Accrued Interest Payable...............	65.00
Depreciation of Furniture and Fixtures...	50.00	G. A. Royal, Drawing.	420.00
Depreciation of Delivery Truck..........	185.00	Accounts Payable.....	1,833.00
Delivery Truck Expenses.............	1,292.00	Cash.................	4,560.00
Reserve for Bad Debts.	85.00	Notes Receivable......	670.00
Inventory of Supplies..	20.00	Accounts Receivable...	3,325.00
Interest on Mortgage..	240.00	Sales................	35,485.00
Accrued Interest Receivable...........	11.00	Depreciation of Building................	256.00
Accrued Salaries Payable...............	225.00	G. A. Royal, Capital, January 1, 19A.....	17,500.00
Prepaid Office Salaries.	30.00	Bad Debts...........	75.00
Inventory of Merchandise................	4,225.00	Office Supplies	130.00
Telephone and Telegraph..............	83.00	Mortgage Payable.....	4,000.00
Furniture and Fixtures	500.00	Interest Income.......	94.00
Miscellaneous Store Expenses.............	340.00	Office Salaries...	2,652.00
Accrued Advertising Payable...........	25.00	Sales Salaries.........	3,160.00
Prepaid Advertising...	100.00	Prepaid Insurance.....	35.00
		Insurance............	180.00
		Delivery Truck.......	740.00
		Land.................	2,700.00
		Heat and Light.......	115.00
		Advertising...........	255.00
		Sales Discounts.......	318.00
		Purchase Discounts....	280.00
		Interest Expense......	176.00
		Building.............	12,800.00
		Notes Payable...... .	542.00

Required:

a. Set up the last six columns of a work sheet. Rule, total, and balance.

b. Prepare the closing journal entries.

c. Prepare a formal balance sheet.

d. What figure, if any, appeared in the unadjusted trial balance for each of the following accounts:

(1) Reserve for Depreciation of Building?

(2) Cost of Goods Sold?

(3) Advertising?

(4) Prepaid Insurance?

7. **The following trial balance was taken from the ledger of Walter J. Brand as of December 31, 19A, after he had been in business 12 months:**

WALTER J. BRAND

TRIAL BALANCE, DECEMBER 31, 19A

Cash	$ 3,850.00	
Accounts Receivable	6,200.00	
Notes Receivable	2,000.00	
Inventory of Merchandise	5,940.00	
Prepaid Insurance	120.00	
Furniture and Fixtures	1,000.00	
Accounts Payable		$ 3,590.00
Notes Payable		1,500 00
Walter J. Brand, Capital		10,000.00
Walter J. Brand, Drawing	250.00	
Sales		58,450.00
Sales Returns and Allowances	960.00	
Purchases	45,840.00	
Transportation In	325.00	
Store Salaries	2,600.00	
Store Expenses	980.00	
Office Salaries	1,500.00	
Office Expenses	460.00	
Rent Expense	1,500.00	
Interest Expense	113.00	
Interest Income		98.00
	$73,638.00	$73,638.00

The information shown below applies to Brand's business and must be considered to determine the net profit or loss for the year and the net worth of his business as of December 31, 19A:

Inventory of merchandise, December 31, 19A		$5,257.00
Inventory of store supplies		30.00
Accrued salaries payable:		
a. Store salaries	$ 90.00	
b. Office salaries	140.00	230.00
Accrued interest receivable		10.00
Unexpired insurance		45.00
Interest collected in advance		8.00

A reserve for depreciation of 10 per cent on furniture and fixtures should be provided.

It is estimated that $200.00 of the accounts receivable are doubtful of collection.

Required:

a. A complete work sheet.

b. The adjusting and the closing journal entries.
c. A statement of profit and loss for the year.
d. A balance sheet as of December 31, 19A.

8. The ledger of David Bruce shows the following account balances as of December 31, 19A:

DAVID BRUCE

TRIAL BALANCE, DECEMBER 31, 19A

Cash	$ 6,165.00	
Accounts Receivable	13,705.00	
Reserve for Bad Debts		$ 150.00
Notes Receivable	3,000.00	
Inventory of Merchandise	20,000.00	
Land	6,000.00	
Building	40,000.00	
Reserve for Depreciation of Building		4,000.00
Delivery Equipment	5,000.00	
Reserve for Depreciation of Delivery Equipment		1,200.00
Equipment	3,500.00	
Reserve for Depreciation of Equipment		900.00
Accounts Payable		10,450.00
Notes Payable		2,500.00
Mortgage Payable		20,000.00
David Bruce, Capital		60,600.00
David Bruce, Drawing	2,870.00	
Sales		150,000.00
Sales Returns and Allowances	1,300.00	
Purchases	136,000.00	
Purchase Returns and Allowances		6,375.00
Freight In	1,900.00	
Salesmen's Salaries	6,060.00	
Delivery Expenses	1,100.00	
Miscellaneous Selling Expenses	1,015.00	
Office Salaries	3,600.00	
Heat and Light	750.00	
Office Expenses	210.00	
Telephone and Telegraph	185.00	
Insurance	200.00	
Stationery and Printing	270.00	
Miscellaneous Administrative Expenses	1,610.00	
Sales Discounts	2,725.00	
Mortgage Interest Expense	1,100.00	
Interest Expense	275.00	
Purchase Discounts		2,245.00
Interest Income		120 00
	$258,540.00	$258,540.00

Information gathered from other sources discloses the following facts as of December 31, 19A:

Inventory of merchandise, December 31, 19A...		$34,500.00
Office supplies on hand........................		65.00
Accrued interest on a note receivable..........		25.00
Accrued interest on a note payable...........		15.00
The mortgage bears 6 per cent interest payable semiannually on June 1 and December 1.		
Interest collected in advance on notes receivable		50.00
Accrued salaries:		
Salesmen...............	$300 00	
Office employees..	50.00	350.00
Prepaid insurance...		40.00
Accrued property taxes..........		700.00
Depreciation is to be provided as follows:		
On the building...............		5 per cent per year
On delivery equipment...		20 per cent per year
On equipment...		10 per cent per year
A Reserve for Bad Debts account equal to 2 per cent of the accounts receivable is considered desirable.		

Required:

a. A complete ten-column work sheet.

b. A statement of profit and loss for the year.

c. A balance sheet as of December 31, 19A.

d. The adjusting and closing journal entries.

e. If you had prepared a postclosing trial balance as of December 31, 19A, what should have been its total?

PRACTICE SET 1-*A*

William Wible Problem

This problem requires the use of five books of original entry and 72 ledger accounts. Practice Set 1-*A* or 1-*B*, which is available from the publishers of this text, includes a booklet that contains the General Journal, Cash Receipts Journal, Cash Disbursements Journal, Purchase Journal, and Sales Journal, and a booklet that contains 72 ledger accounts. In the ledger booklet the accounts are placed four to the page, but for posting purposes each account is considered to be a separate page.

The solution must be done *neatly* in ink. All rulings are to be made in red ink with a ruler.

You are requested to enter the transactions in the proper journals and make the current postings, keeping in mind the following suggestions:

1. Record cash purchases and cash sales in the cash journals only.
2. Record discounts on purchases and sales through the general journal.
3 Record all bills at the time of their receipt.
4. Unless it is indicated clearly that cash is received or disbursed, assume that transactions are credit ones.

The following accounts are to be used in recording the transactions of this problem. You are asked to open these accounts in your ledger in the order indicated, placing the real accounts first with the nominal accounts following.

Real Accounts

1. Cash
2–11. Allow space for ten accounts with customers
12. Notes Receivable
13. Accrued Interest Receivable
14. Merchandise Inventory
15. Prepaid Insurance
16. Inventory of Postage
17. Land
18. Building
19. Reserve for Depreciation of Building
20. Auto Truck
21. Reserve for Depreciation of Auto Truck
22. Advertising Fixtures
23. Reserve for Depreciation of Advertising Fixtures

Nominal Accounts

43. Sales
44. Sales Returns and Allowances
45. Purchases
46. Transportation In
47. Purchase Returns and Allowances
48. Cost of Goods Sold
49. Store Expenses
50. Advertising
51. Delivery Truck Expenses
52. Depreciation of Auto Truck
53. Insurance on Merchandise Inventory
54. Depreciation of Advertising Fixtures
55. Salaries—Store
56. Salaries—Office
57. Office Expenses

24. Furniture and Fixtures
25. Reserve for Depreciation of Furniture and Fixtures
26–35. Allow space for ten accounts with creditors
36. Notes Payable
37. Accrued Interest Payable
38. Accrued Salaries Payable
39. Accrued Taxes Payable
40. Mortgage Payable
41. William Wible, Capital
42. William Wible, Personal
58. Postage
59. Light
60. Rent
61. Building Repairs
62. Property Taxes
63. Depreciation of Building
64. Depreciation of Furniture and Fixtures
65. Insurance on Building and Equipment
66. Sales Discounts
67. Interest Expense
68. Mortgage Interest Expense
69. Interest Income
70. Purchase Discounts
71. Gain on Liability Liquidation
72. Profit and Loss

Mr. Wible has planned an excellent system of filing purchase and sales invoices; therefore, detailed explanations may be omitted in the purchase and sales journals. In lieu of a complete explanation you may enter the number of each credit invoice and the terms. Assume credit purchase invoices are numbered consecutively beginning with 1 and that credit sales invoices are numbered similarly.

December 1, 19A

William Wible purchased the business of R. J. Lynch, who was engaged in buying and selling office equipment and supplies. He invested the following assets:

Cash		$8,105.00
Accounts Receivable:		
Rice Brothers	$200.00	
Albert Lightner	500.00	
Rulon Scott	700.00	1,400.00
Notes Receivable		400.00
Merchandise Inventory		6,728.45
Advertising Fixtures		460.00
Auto Truck		1,260.00
Furniture and Fixtures		950.00

Wible had the business assume the following liabilities:

Accounts Payable:		
Colbert Typewriter Company	$ 700.00	
Hooker Supply Company	300.00	
Browell Brothers	230.00	
S. E. Jackson	2,100.00	3,330.00
Notes Payable		**1,350.00**

Open the new records by journalizing the above items in the general journal with the exception of Cash, which should be recorded in the cash receipt journal. Record the individual accounts receivable and payable so that their respective balances may be posted properly to the ledger.

Sent a check for $90.00 to the Glass Insurance Agency for insurance for one year from date covering

Equipment	$12.00
Auto truck	48.00
Merchandise	30.00

(Debit Prepaid Insurance.)

Sent a check for $150.00 to the Reiber Real Estate Company covering rent of the store for December.

Paid $7.00 to have the store cleaned.

December 2

Sent a check for $50.00 to the Mutual Printing Company to cover advertising for one month beginning December 1 in their publication known as the *Office Guide.*

December 3

Purchased $15.00 of stamps for cash for use in the office.

Received a postal money order from Rice Brothers in full of account.

Received a check from Rulon Scott for $300.00 to apply on account.

December 4

Purchased from the Tyler Typewriter Company, terms 3/10, n/30:

25 Pep typewriters	$49.50 each
25 Speedo typewriters	52.75 each

Purchased from the Hooker Supply Company, terms on account:

20 Jump-a-Line machines	$14.00 each
1,000 black typewriter ribbons	.28 each

December 5

Sold to the Progressive Commercial School, terms on account:

5 Pep typewriters	$78.30 each
600 manila letter folders	1.95 per C
18 dozen stenographer's notebooks	1.50 a doz.

Sold to the Burt Manufacturing Company, terms 2/5, n/30:

30 portable desk lamps	$ 2.50 each
12 oak typewriter desks	62.50 each
12 oak typewriter chairs	13.75 each

December 6

Paid weekly salaries:

1 bookkeeper	$28.00
2 office clerks, each	18.00
1 office messenger	10.00
William Wible, Proprietor	50.00
(Charge Wible's salary ¾ to Salaries—Store and ¼ to Salaries—Office)	
2 salesmen, each	25.00
1 auto truck driver (charge Delivery Truck Expenses)	14.00

December 8

Sold seven boxes of carbon paper at $3.20 each to the D. A. Arnold Company. Stamps used in mailing them cost $.35. The stamps were taken from the drawer. The D. A. Arnold Company agreed to reimburse us for the stamps when the bill is paid.

Purchased 25 pounds of assorted rubber bands at $2.10 a pound, terms cash. This purchase was made from the Goodstone Rubber Company.

Record the $12.40 invoice received this morning from the Hooker Supply Company covering the new set of bookkeeping records which we purchased last week for our own use.

December 9

The D. A. Arnold Company sent $.35 in stamps and a check for the balance due on their purchase of yesterday.

December 10

Received a check from the Burt Manufacturing Company for the net amount of their purchase of December 5.

William Wible purchased the land and the building in which his business was located. The price of the building was $7,000.00 and the land $3,000.00. A first mortgage of $6,000.00, which had been placed by Ralph Powers, the owner, was assumed by Wible. Wible agreed to pay back taxes of $292.50, of which $97.50 was on the land and $195.00 on the building. Powers allowed $100.00 credit on the rent for the unexpired portion of the month. Accrued interest on the mortgage to date of $70.00 was also assumed by Wible. A check was mailed to the City Treasurer to cover the taxes. A check was given to Powers to complete the deal. (Use a ledger account captioned Ralph Powers.)

December 11

Sold Fox and Son, terms 2/10, n/30:

2 dozen bottles of Clear-up-Type	$ 6.50 a doz.
1 dozen desk pads	3.50 a pad
2 envelope sealers	45.00 each

Received a check for $230.20 from the Progressive Commercial School to apply on account.

December 12

Sent a check for $36.00 to the Glass Insurance Agency for insurance on the building. The policy, dated December 10, was for one year.

A Pep typewriter sold on December 10 to M. A. Gay for $78.00 cash was returned this morning because it was defective. A similar machine was given to the customer. (Use a ledger account captioned M. A. Gay.) (Cash sales are recorded semimonthly. See December 15.)

December 13

Paid salaries for the current week the same as for the previous week.

Received a credit memorandum from the Tyler Typewriter Company for $49.50 covering the Pep typewriter returned yesterday.

Sent a check to the Tyler Typewriter Company for the net amount due on our purchase of December 4.

December 15

Paid the Liberty Garage $5.28 for oil and gasoline and $1.00 for greasing the auto truck.

Unrecorded cash sales amounted to $1,166.75.

December 16

Received a check for $400.00 from R. J. Wallace in full settlement of his 30-day noninterest-bearing note that matured today. This note was invested by William Wible on December 1.

Purchased from the DeLuxe Stencil Company, terms 30 days net:

100 quires wax stencils....................	$1.80 each quire
100 quires Dermatype stencils............	3.00 each quire

December 17

Purchased from the Albright Furniture Company, terms 3/5, n/30:

10 oak typewriter desks......................	$41.20 each
10 oak typewriter chairs......................	8.15 each

Paid a bill for $16.94 from the Pennsylvania Railroad Company covering the merchandise received today from the Albright Furniture Company.

December 18

Mailed a check for $38.24 to George A. Love to cover repairs to the building. (Debit Building Repairs as the bill was so small.)

Purchased from Dunlap Supply House, terms on account:

4 Ever-Ready stamp affixers....	$32.50 each
12 rolls stamps (500 to the roll)....	10.02 each

December 19

Received a bill from H. O. Woods for $25.00 to cover the cost of printing on envelopes and forms used in the office.

Rulon Scott sent a check for $150.00 to apply on account.

Sent Hooker Supply Company our 30-day note dated today in full of account.

December 20

Paid salaries for the current week the same as paid on December 6.

Sent a check to the Albright Furniture Company for the net amount of our purchase of December 17.

Received a check from Fox and Son for the net amount of their purchase of December 11.

December 22

Sold Fox and Son, terms 30 days net:

1 Ever-Ready stamp affixer	$46.25
5 rolls stamps	10.02 each
10 quires Dermatype stencils	3.20 each

December 23

Albert Lightner sent his check for $100.00 and his $300.00 30-day 6 per cent promissory note dated today.

Sent S. E. Jackson a check for $1,000.00 and our 60 day 6 per cent note dated today for the balance due on open account.

December 24

Purchased from the Hooker Supply Company $2.50 of paper clips, ink, pens, blotters, etc., for use in our office, terms on account.

December 25

The store and office were closed for the day.

December 26

Sold Penn-Lynn Company, terms 2/10, n/30:

3 complete office sets	$575.30 each

Purchased a used typewriter desk and chair for $25.00 cash. They were bought to be sold.

December 27

Paid salaries for the current week the same as paid on December 6 except that William Wible decided to take only $10.00 and have the balance credited to his account.

Sold R. B. Henry, terms 2/5, n/30:

100 boxes typewriting paper	$ 1.65 each
6 portable typewriters	65.00 each
2 noiseless typewriters	170.00 each
1 Jump-a-Line machine	30.00

December 29

G. E. Quinn held a $1,350.00 90-day note that William Wible assumed on December 1. Quinn needed the money and offered to cancel the note if $1,300.00 was paid at once. Wible sent a check for $1,300.00.

R. B. Henry returned 90 boxes of typewriting paper purchased yesterday. Our clerk made an error in writing the order. It should have been 10 boxes instead of 100. We allowed full credit.

December 30

Purchased from Tyler Typewriter Company, terms 2/10, n/30:

5 noiseless typewriters	$93.00 each

Sent checks for the following:

The Bell Telephone Company		$ 9.50
The Equitable Electric Company:		
Light	$10.25	
Current for advertising sign	12.00	22.25

Wible withdrew $60.00 for personal use.

December 31

Unrecorded cash sales totaled $643.00.

Paid the Liberty Garage $12.80 for oil and gasoline for the auto truck.

Additional requirements:

a. Rule and total the purchase and sales journals.

b. Rule, balance, and total the cash receipts and disbursements journals.

c. Post the totals of the journals to the ledger.

d. Prepare a trial balance on the first two columns of a work sheet. List each account receivable and payable.

e. Complete the work sheet, using the following supplementary data as of December 31, 19A:

Inventory of merchandise	$7,593.17
Accrued interest on the note receivable from Albert Lightner	.40
All accounts and notes receivable were considered good.	
Inventory of postage	7.00

Prepaid insurance on December 31 was as follows:

On auto truck	$44.00	
On inventory of merchandise	27.50	
On building and equipment	45.00	116.50

Depreciation of fixed assets for December is to be provided at the following rates:

Automobile truck	25 per cent a year
Advertising fixtures	20 per cent a year

Building (consider a full month).........	4 per cent a year	
Furniture and fixtures..................	10 per cent a year	
Accrued interest on the note payable to S. E. Jackson.........		$ 1.47
Accrued interest on the mortgage since December 10..........		20.00
Accrued salaries are to be provided for one-half a week.		
Accrued property taxes for December.......................		38.00
Transfer Depreciation of Auto Truck to the Delivery Truck Expenses account.		

f. Prepare a profit and loss statement for the month and a balance sheet as of December 31, 19A. In the profit and loss statement consider insurance on merchandise inventory a selling expense and consider the expenses for postage, light, rent, building repairs, property taxes, depreciation of building, depreciation of furniture and fixtures, and insurance on building and equipment as general and administrative expenses.

g. Record the adjusting and closing entries in the general journal and post them to the ledger.

h. Rule and balance the accounts where necessary.

i. Prepare a postclosing trial balance.

The solution to this problem should be preserved carefully as it is continued with columnar journals and subsidiary ledgers in Practice Set 2-*A*.

PRACTICE SET 1-*B*

Ray D. Oles Problem

This problem requires the use of five books of original entry and 72 ledger accounts. Practice Set 1-*A* or 1-*B*, which is available from the publishers of this text, includes a booklet that contains the General Journal, Cash Receipts Journal, Cash Disbursements Journal, Purchase Journal, and Sales Journal, and a booklet that contains 72 ledger accounts. In the ledger booklet the accounts are placed four to the page, but for posting purposes each account is considered to be a separate page.

The solution must be done *neatly* in ink. All rulings are to be made in red ink with a ruler.

You are requested to enter the transactions in the proper journals and make the current postings, keeping in mind the following suggestions:

1. Record cash purchases and cash sales in the cash journals only.
2. Record discounts on purchases and sales through the general journal.
3. Record all bills at the time of their receipt.
4. Unless it is indicated clearly that cash is received or disbursed, assume that transactions are credit ones.

You are to use the following accounts to record the transactions of this problem. You are asked to open these accounts in your ledger in the order indicated placing the real accounts first with the nominal accounts following.

Real Accounts

1. Cash
2–11. Allow space for ten accounts with customers
12. Notes Receivable
13. Accrued Interest Receivable
14. Inventory of Merchandise
15. Prepaid Insurance
16. Inventory of Postage
17. Land
18. Building
19. Reserve for Depreciation of Building
20. Auto Truck
21. Reserve for Depreciation of Auto Truck
22. Tools and Sales Equipment
23. Reserve for Depreciation of Tools and Sales Equipment

Nominal Accounts

41. Sales
42. Sales Returns and Allowances
43. Purchases
44. Transportation In
45. Purchase Returns and Allowances
46. Cost of Goods Sold
47. Advertising
48. Insurance on Truck
49. Delivery Truck Expenses
50. Depreciation of Truck
51. Transportation Out
52. Insurance on Inventory
53. Depreciation of Tools and Sales Equipment
54. Service Expenses
55. Miscellaneous Store Expenses
56. Salaries—Delivery

24. Office Furniture and Fixtures
25. Reserve for Depreciation of Office Furniture and Fixtures
26–33. Allow space for eight accounts with creditors
34. Notes Payable
35. Accrued Interest Payable
36. Accrued Salaries Payable
37. Accrued Taxes Payable
38. Mortgage Payable
39. Ray D. Oles, Capital
40. Ray D. Oles, Personal
57. Salaries—Sales
58. Salaries—Office
59. Postage
60. Heat and Light
61. Telephone and Telegraph
62. Property Taxes
63. Depreciation of Building
64. Depreciation of Office Furniture and Fixtures
65. Insurance on Building and Equipment
66. Miscellaneous Office Expenses
67. Rent Expense
68. Sales Discounts
69. Mortgage Interest Expense
70. Interest Income
71. Purchase Discounts
72. Profit and Loss

Mr. Oles has planned an excellent system of filing purchase and sales invoices; therefore, detailed explanations may be omitted in the purchase and sales journals. In lieu of a complete explanation you may enter the number of each credit invoice and the terms. Assume credit purchase invoices are numbered consecutively beginning with 1 and that credit sales invoices are numbered similarly.

December 1, 19A

Ray D. Oles began business, investing assets and assuming liabilities of a similar business that had been conducted by K. D. Smith. Mr. Oles paid Mr. Smith the book value of his partially liquidated business as shown by the following balance sheet:

K. D. SMITH

BALANCE SHEET, DECEMBER 1, 19A

Accounts Receivable (Schedule *A*)	$ 518.50	Notes Payable	$ 500.00
Notes Receivable	100.00	K. D. Smith, Capital	4,818.50
Inventory of Merchandise	2,800.00		
Auto Truck	800.00		
Tools and Sales Equipment	1,100.00		
	$5,318.50		$5,318.50

Schedule *A*—Accounts Receivable

R. E. Frank and Company	$178.00
Burt and Hope	245.50
A. G. Grant	95.00
	$518.50

To provide working capital Mr. Oles sold for $11,450.00 cash stocks and bonds that had cost him $10,820.00 and invested the proceeds in the new business. A checking account was opened with the Second National Bank.

Open the records by journalizing the investment of Mr. Oles.

Mr. Oles signed a one-year lease on the business property at 105 South Main Street, in which to engage in the marketing of refrigerators, radios, and other electrical appliances. Under the terms of the lease Mr. Oles agreed to pay $150.00 a month rent. A check for the month of December was given to the owner, Mr. W. W. Wells.

December 2

Record the $18.95 invoice received this morning from Hays Brothers covering the new journals, ledger, and miscellaneous office supplies.

Two office desks, chairs, filing cabinets, a typewriter, an adding machine, and other office equipment arrived this morning from Warner and Warner, terms $200.00 cash, the balance of $500.00 due in 30 days.

A cash register, suitable display equipment for appliances, radio testing equipment, and tools for servicing refrigerators and radios were received from the Columbia Equipment Company. The $1,200.00 invoice carried terms of 1/5, n/60.

A check for $9.50 was sent to the Department of Revenue to cover the cost of title transfer on the truck and the license plates.

December 3

Sent a check for $116.00 to the Steel City Insurance Company covering insurance for one year from December 1 on the merchandise, auto truck, tools, sales equipment, and office equipment.

Sent a check for $50.00 to the *Inland Daily*, which agreed to run a $12.50 advertisement each Saturday for four weeks starting December 6.

Purchased $20.00 of stamps for cash.

December 4

Sold small appliances to A. N. Black for $14.00, terms on account.

Purchased $251.00 of electrical appliances from Watt and Watt, terms 1/10, n/30.

Received a check from A. G. Grant in full of account.

Burt and Hope sent a check for $45.50 and a 60-day 6 per cent note dated today to cover their entire indebtedness. Mr. Oles agreed to this new arrangement.

December 5

Purchased $1,750.50 of electrical refrigerators from the Peerless Refrigerator Company, terms 2/10, n/60.

Sold a radio to Henry Holmes, Inc., for $87.50, terms n/30.

Sold a radio for $127.50 to M. J. Carr who lived 50 miles away, terms

$50.00 cash and the balance on open account. The radio was sent f.o.b. destination. Mr. Carr agreed to pay the express and deduct it from the unpaid balance.

December 6

Received radios from the Superior Radio Company, terms 1/10, n/60:

Retail sales price	$640.00
Less trade discount 25 per cent	160.00
Contract price	$480.00

Paid $18.50 for transportation of the radios received today from the Superior Radio Company.

Paid salaries for the week ended today, as follows:

Office salaries	$48.00
Sales salaries	95.00
Truck driver	20.00

Sent a check to the Columbia Equipment Company in full of account. (Credit the asset account with the discount.)

December 8

Cash sales for the week ended December 6 totaled $487.50.

Advertising literature furnished by the manufacturers was mailed to a select list of prospective customers. Used $5.00 of the stamps purchased on December 3. Record.

Returned a radio purchased day before yesterday from the Superior Radio Company because its cabinet was so badly marred it could not have been sold at the retail price. Its retail sales price was $48.00. The Superior Radio Company gave us a credit memorandum for $36.00.

Received a bill from the Billboard Advertising Company for $100.00 covering advertising space for the two weeks preceding Christmas.

December 9

One of the notes assumed from K. D. Smith, amount $350.00, was paid to J. R. Mason.

A check for $9.95 received last Saturday from J. O. Lane when he purchased an electrical appliance was returned this morning marked N.S.F. (Not Sufficient Funds.)

Sold a radio to A. G. Grant for $175.00, terms $75.00 cash and a 60-day 6 per cent note dated today for the balance.

Sent a check to Hays Brothers in full of account.

December 10

W. W. Wells agreed to sell Oles the land and the building in which the business was located. The price was $18,000.00, of which $5,000.00 was the value of the land and $13,000.00 the value of the building. Oles assumed a $12,000.00 mortgage that Wells owed on the property and

$320.00 of accrued interest on the mortgage to date. Wells allowed $100.00 credit on the rent for the unexpired portion of the month. Oles gave Wells a check to complete the transaction. (Credit Cash in the general journal and cross-check.)

Oles placed insurance on the building with the Steel City Insurance Company for one year from today for a premium of $65.00. A check was sent to cover.

December 11

Received a check from M. J. Carr for the balance due on his purchase of December 5 less the $3.50 express he paid.

Sent a check for $3.75 to the Scott Hardware Company for stain, varnish, brushes, and sandpaper used to recondition the shelves and counters in the sales department.

The Colonial Hotel decided to equip its most expensive rooms with radios and placed an order with Oles for 20 sets, of which 10 were delivered immediately. Oles then telegraphed an order to the Superior Radio Company for 25 radios, of which 10 were to be sent by express directly to the Colonial Hotel. The retail sales price of each radio was $19.95 but Oles gave the Colonial Hotel a 10 per cent trade discount and offered an additional 2 per cent for payment within 10 days. The Colonial Hotel was billed for the 10 radios delivered today.

December 12

A new coil, condenser, and spark plugs for the auto truck cost $13.50 cash. (Charge Delivery Truck Expenses.)

Oles had the bookkeeper send a $430.00 business check to the Universal Auto Agency for the balance due on the trade-in of his personal automobile.

December 13

Sent a check to Watt and Watt for the balance due on the purchase of December 4.

Paid salaries for the current week the same as last Saturday except that the sales help was increased by an additional clerk hired at $22.00 a week. The new clerk worked all week.

December 15

Cash sales for the week ended December 13 totaled $763.80. A cash count revealed only $762.80. Presumably the error was made in making change.

Purchased $310.00 of electrical appliances from Watt and Watt, terms 1/10, n/30.

Sent a check to Peerless Refrigerator Company for the balance due on the purchase of December 5.

December 16

The truck driver went to traffic court this morning and paid a $6.50 fine for ignoring a stop sign. Oles reimbursed the driver by business

check but warned him that he would not be reimbursed for any fines in the future.

Sent a check to the Superior Radio Company for the balance due on the purchase of December 6.

The radios ordered from the Superior Radio Company on December 11 arrived this morning, 15 of them at Oles's place of business and 10 of them at the Colonial Hotel. The 1/10, n/60 invoice showed

Retail sales price (25 at $19.95)	$498.75
Less trade discount 25 per cent	124.69
Contract price	$374.06

Paid $14.50 for transportation of the 25 radios received today.

December 17

Sent a bill to the Colonial Hotel for the remaining 10 radios with the same terms as those delivered on December 11.

An employee took $2.00 worth of stamps with which to mail Christmas cards and placed $2.00 in the cash register.

Received a check for $100.00 from D. R. Frank in payment of his note due today. This note was assumed from the business of K. D. Smith.

December 18

Mr. Oles had offered a radio to the high-school student who wrote the best essay on "The Radio as a Factor in Political Campaigns." Oles received a lot of favorable publicity. The radio was awarded to R. R. Ward. It was one of those received from the Superior Radio Company on December 16. Its cost was $15.54—the contract price of $14.96 plus $0.58 of transportation-in.

December 19

Purchased a public-address system from the Eastern Electrical Company to fill a special order from Henry Holmes, Inc. The cost was $227.60 and Oles sold it at a price to yield 20 per cent of cost. Delivery was made today. Both the sale and purchase were on account.

Sent a check for $18.25 to the Peoples Gas Company for gas used to heat the building.

December 20

Paid salaries for the current week the same as last Saturday.

A check was received from the Colonial Hotel to cover the 10 radios delivered on December 11.

Sold a refrigerator on 30 days credit to R. E. Frank and Company, price $185.00.

December 22

Cash sales for the week ended December 20 totaled $969.30.

Received a check from J. O. Lane to cover his N.S.F. check. An apologetic letter explained the cause of the error.

Sent a check for $19.00 to the Equitable Electric Company for electricity used.

December 23

The purchase made from Watt and Watt on December 15 had to be paid by December 25 in order not to lose the discount. Because of the holiday a check was mailed today to cover the net amount due.

Sold a refrigerator for $175.00 to Burt and Hope, terms $75.00 cash and a 30-day 6 per cent note dated today for the balance.

December 24

Mr. Oles gave each of his five employees a turkey for Christmas. The turkeys cost $35.00 cash. (Debit Ray D. Oles, Personal.)

Refunded $9.95 cash to G. B. Moore for a toaster he purchased last Saturday. It was unused. Moore had received another toaster as a Christmas present. This item was included in the $969.30 of cash sales.

December 25

The store and office were closed for the day.

December 26

Sent a check to the Superior Radio Company for the net amount of the purchase of December 16.

Received a check from the Colonial Hotel for the balance due.

Received a check from A. N. Black in full of account for his purchase of December 4.

December 27

Sent a check for $150.00 to John Platt to cover a noninterest-bearing note assumed from the business of K. D. Smith.

Sold five refrigerators to R. S. Young, Agent to replace worn-out units in houses he rented. The retail sales price of each was $150.00 and we allowed him a trade discount of 10 per cent, terms n/30.

Paid salaries for the current week the same as last Saturday. The extra clerk who was hired for the Christmas season finished his duties today.

December 29

W. S. Scott purchased a refrigerator last week for $175.00 cash. (Do not record the sale as it is included in the cash sales of $865.40 below.) It was too large for the space in his kitchen. We exchanged it today for a refrigerator priced at $150.00 and refunded the $25.00. (Use a ledger account captioned W. S. Scott.)

Received a check from Henry Holmes, Inc., for their purchase of December 5.

Cash sales for the week ended December 27 totaled $865.40.

December 30

A. N. Black made a $20.00 deposit on a large refrigerator. He wanted us to hold this particular refrigerator until his wife could see it. We

promised to return the money should his wife not be satisfied. The refrigerator was marked NOT FOR SALE.

Purchased $327.00 of electrical appliances from Watt and Watt, terms 1/10, n/30.

December 31

Cash sales for the last three days totaled $386.00.

Sent checks to the following:

Radio Service Engineers, Inc., for servicing radios...	$38.50
The Bell Telephone Company for telephone and telegraph..................................	19.00
Midtown Garage for oil, gas, and greasing the auto truck..................................	27.80

Additional requirements:

a. Rule and total the purchase and sales journals.

b. Rule, balance, and total the cash receipts and disbursements journals.

c. Post the totals of the journals to the ledger.

d. Prepare a trial balance on the first two columns of a work sheet. List each account receivable and payable.

e. Complete the work sheet, using the following supplementary data as of December 31, 19A:

Inventory of merchandise		$3,180.00
Accrued interest receivable		1.40
All accounts and notes receivable are considered good.		
Inventory of postage..............................		6.00
Insurance for December was as follows:		
On auto truck..............................	$4.83	
On inventory of merchandise	4.00	
On building and equipment..........	4.69	13.52
Depreciation of fixed assets for December should be provided at the following rates:		
Building (consider a full month) 4 per cent a year		
Auto truck.................. 33⅓ per cent a year		
Tools and sales equipment.... Provide $25.00 for December		
Office furniture and fixtures... 10 per cent a year		
Accrued interest on the mortgage at 6 per cent since December 10		40.00
Accrued salaries are to be provided for one-half a week.		
Accrued property taxes for December................		42.00
Transfer to the Delivery Truck Expenses account all costs in connection with the operation of the truck including insurance, delivery salaries, and depreciation.		

f. Prepare a statement of profit and loss for the month, an analysis of proprietorship for the month, and a balance sheet as of December 31, 19A. In the profit and loss statement consider insurance on inventory a selling expense and consider the expenses for telephone and telegraph, postage, heat and light, property taxes, depreciation of building, depreciation of office furniture and fixtures, and insurance on building and equipment as general and administrative expenses.

g. Record the adjusting and closing entries in the general journal and post to the ledger.

h. Rule and balance the accounts where necessary.

i. Prepare a postclosing trial balance.

The solution to this problem should be preserved carefully as it is continued with columnar journals and subsidiary ledgers in Practice Set 2-*B*.

Chapter XIV. Inventories, Accruals, and Deferred Items

1. A company keeps its records on a semiannual basis. During the period of July 1 to December 31, 19A, the following purchases of a certain item of merchandise were made:

Date	Quantity	Unit Cost Price	Amount
July 5	3,000	$2.10	$ 6,300.00
August 3	4,000	2.15	8,600.00
September 9	2,000	2.20	4,400.00
October 7	5,000	2.25	11,250.00
November 8	7,000	2.30	16,100.00
December 5	8,000	2.40	19,200.00
	29,000		$65,850.00

Units on hand:

Date	Quantity	Unit Cost Price	Unit Market Price
July 1	2,000	2.00	$2.05
December 31	10,000	?	2.35

Required:

a. If the company values its merchandise at cost and ignores market declines, what was the value of the inventory of merchandise at December 31, 19A, assuming that the company uses the

(1) Stock-taking pricing method? (Each remaining unit is valued at the last invoice price.)

(2) Weighted average pricing method? (The weighted average cost is obtained by dividing the total cost of the beginning inventory and purchases by the total units in the beginning inventory and purchases.)

(3) First-in, first-out pricing method? (The remaining units are assumed to be the last units purchased.)

(4) Last-in, first-out pricing method? (The remaining units are assumed to be the first units purchased, including the beginning balance.)

b. The journal entry necessary to record the cost value of the inventory in each of the four cases of *a* above. Although each of the four methods results in a different inventory value, each is considered to be the *cost value.*

c. If the company values its inventory at cost or market whichever is lower, how would your answers to the first, second, and third cases of *a* be changed?

2. You are called in to audit the records of a company that has just completed its fourth year of operation. The inventory was counted

and valued before you were consulted. The records of the company show that although the volume of sales increased, the amount of gross profit is relatively lower than during any of the previous three years.

The following facts were selected from the statements of profit and loss prepared for the four years:

	19A	19B	19C	19D
Sales	$264,500	$329,900	$358,350	$444,000
Sales Returns and Allowances	500	900	1,100	1,500
Inventory of Merchandise, Jan. 1.	0	35,200	41,500	43,600
Purchases	233,500	254,000	269,150	346,400
Purchase Returns and Allowances	300	700	900	1,000

The inventory of merchandise on December 31, 19D, as taken and computed by employees of the company, totaled $35,000.00.

Required:

a. Using the above figures, compute the percentage of gross profit on sales to net sales for each of the four years.

b. Assuming the company has made no appreciable change in its method of pricing merchandise for sale (percentage of mark-up), determine the approximate value of the inventory of merchandise on December 31, 19D.

P. S. It is interesting to note that after you presented the president of the company with your findings, he admitted that he had written down the value of the inventory in order to reduce the income tax for the year.

3. The building rented by W. R. Hazelton was partially destroyed by fire on the morning of September 1, 19A. Some of the stock of merchandise was likewise destroyed. The journals and ledgers were partially damaged, but a copy of the following balance sheet was available.

W. R. HAZELTON

Balance Sheet, January 1, 19A

Cash	$28,923.00	Accounts Payable	$ 9,365.00
Accounts Receivable	17,524.00	Notes Payable	917.00
United States Bonds	10,000.00	Accruals Payable	400.00
Inventory of Merchandise	30,000.00	Reserve for Depreciation	3,037.00
Fixtures and Equipment	7,000.00	W. R. Hazelton, Capital	83,222.00
Automobiles	3,494.00		
	$96,941.00		$96,941.00

From the books and an analysis of the deposits and payments shown by the checkbook for the first eight months of 19A, the following receipts and disbursements of cash were determined:

Cash Receipts

From customers on open account	$134,746.00
From interest on United States bonds	237.00
	$134,983.00

Cash Disbursements

To pay notes payable issued last year	$ 917.00
To creditors for merchandise purchased on open account	83,584.00
For new equipment	3,750.00
For miscellaneous operating expenses	38,386.00
	$126,637.00

A report given the owner as of August 31, 19A, showed

Accounts receivable	$18,951.00
Accounts payable	10,269.00

Assume:

a. All purchases and sales of merchandise were made on a credit basis.
b. All accounts receivable arose out of sales of merchandise and all accounts payable out of purchases of merchandise.
c. There were no sales returns or allowances, no purchase returns or allowances, no sales discounts, and no purchase discounts.
d. The value of the marketable merchandise on hand immediately after the fire was set at $20,000.00.

Required:

a. What was the amount of sales made to customers during the eight months?
b. What was the amount of purchases of merchandise made during the eight months?
c. If the average rate of gross profit on sales had been 33⅓ per cent for the last five years, compute the amount of gross profit on sales for the eight months in 19A.
d. What was the cost of goods sold for the eight months?
e. What was the amount of the inventory of merchandise on hand at the time of the fire?
f. What was the amount of merchandise destroyed by the fire?

4. An advertising company collects from its clients prior to running their advertisements. On January 1, 19A, unearned advertising

amounted to $1,200.00. Cash received in advance during 19A amounted to $60,500.00. On December 31, 19A, unearned advertising totaled $1,500.00. Adjusting and closing entries are prepared each December 31.

Required:

a. Figures to show the advertising income for 19A.

b. Assuming that the bookkeeper credits Advertising Income with all cash receipts for advertising services, set up the two necessary ledger accounts and insert all information from January 1, 19A, to January 1, 19B, inclusive.

c. Assuming that the bookkeeper credits Unearned Advertising with all receipts for advertising services, set up the two necessary ledger accounts and insert all information from January 1, 19A, to January 1, 19B, inclusive.

5. At December 31, 19A, the unadjusted trial balance showed Store Salaries of $8,600.00. On the same day accrued salaries payable to store employees amounted to $100.00.

On January 3, 19B, store employees were paid the weekly $190.00 for services to date.

Store salaries paid during 19B for services performed subsequent to January 3 amounted to $9,200.00.

At December 31, 19B, accrued salaries payable to store employees amounted to $94.00.

Adjusting and closing entries were prepared each December 31.

Required:

a. Figures to show the store salaries expense for each year.

b. Set up the two necessary ledger accounts and insert all information from December 31, 19A, to December 31, 19B, inclusive, assuming that readjusting entries were not made.

c. Set up the two necessary ledger accounts and insert all information from December 31, 19A, to January 1, 19C, inclusive, assuming that readjusting entries were made.

6. The following information is taken from the records of a business that prepares its adjusting and closing entries annually as of December 31:

Store supplies on hand January 1, 19A..........	$ 80.00
Store supplies purchased during 19A............	1,400.00
Store supplies on hand December 31, 19A........	100.00

Required:

a. Determine the cost of supplies consumed in the operation of the store during 19A.

b. Assuming that the bookkeeper debits Inventory of Store Supplies when purchases are made, set up the two necessary ledger accounts and insert all information from January 1, 19A, to January 1, 19B, inclusive.

c. Assuming that the bookkeeper debits Store Expenses when purchases are made, set up the two necessary ledger accounts and insert all information from January 1, 19A, to January 1, 19B, inclusive.

7. The following information was taken from the records of a business that prepared its adjusting and closing entries annually as of December 31:

The trial balance as of December 31, 19A, showed Interest Income of $350.00.

On December 31, 19A, there was accrued interest on three 90-day 6 per cent notes receivable:

	Face Amount	Days Accrued	Accrued Interest
X Company's note.......	$ 800.00	60	$ 8.00
Y Company's note.......	1,200.00	55	11.00
Z Company's note.......	1,000.00	36	6.00
			$25.00

At the maturity of these notes in 19B the company received interest as follows:

	Amount	Maturity Date
X Company's note........................	$12.00	January 30, 19B
Y Company's note........................	18.00	February 4, 19B
Z Company's note........................	15.00	February 23, 19B
	$45.00	

Interest received during 19B on notes which were received and which matured in 19B amounted to $435.00.

On December 31, 19B, there was accrued interest on four 90-day 6 per cent notes receivable:

	Face Amount	Days Accrued	Accrued Interest
X Company's note.......	$ 500.00	18	$ 1.50
R Company's note.......	1,800.00	30	9.00
S Company's note.......	1,500.00	75	18.75
T Company's note.......	2,000.00	24	8.00
			$37.25

Required:

a. Determine the interest earned in 19A and in 19B. Assume that 19A was the first year of business.

b. Set up the ledger accounts for Interest Earned and Accrued Interest Receivable and insert all the necessary facts from December 31, 19A, to December 31, 19B, inclusive, assuming that readjusting entries were not made.

c. Set up the ledger accounts for Interest Earned and Accrued Interest Receivable and insert all the necessary facts from December 31, 19A, to January 1, 19C, inclusive, assuming that readjusting entries were made.

8. The balance sheets at the beginning and end of 19B revealed the following items:

	December 31, 19A	December 31, 19B
Accrued Interest Payable..........	$48.00	$62.00
Interest Paid in Advance..........	35.00	77.00

The statement of profit and loss for 19B showed interest expense of $824.00.

a. Set up the three ledger accounts affected by these facts and insert all information from January 1, 19B, to January 1, 19C, inclusive. Assume that readjusting entries were made each year.

b. What amount of cash was paid in 19B for interest items?

9. The facts immediately following were taken from the balance sheets of the Rodgers Company:

	December 31, 19A	December 31, 19B
Accrued Interest Receivable.......	$225.00	$212.00
Accrued Interest Payable..........	340.00	310.00
Interest Paid in Advance..........	110.00	95.00
Interest Collected in Advance......	80.00	90.00

During the year 19B, cash receipts for interest totaled $2,450.00 and cash payments for interest totaled $2,130.00.

Required:

a. Set up the six necessary ledger accounts and insert all information from January 1, 19B, to January 1, 19C, inclusive. You are to assume that readjusting entries are made each year.

b. Determine the interest income and the interest expense shown by the unadjusted trial balance taken as of December 31, 19B.

10. Accrued Rent Payable

1/1/19B	240.00	12/31/19A	240.00
1/1/19C	165.00	12/31/19B	165.00

Rent Paid in Advance

12/31/19A	90.00	1/1/19B	90.00
12/31/19B	110.00	1/1/19C	110.00

Rent Expense

1/1/19B	90.00	1/1/19B	240.00
19B (Total cash paid)	5,850 00	12/31/19B	110.00
12/31/19B	165.00	12/31/19B	5,755.00
	6,105.00		6,105.00
1/1/19C	110.00	1/1/19C	165 00

The above three accounts were taken from the ledger of the G. A. Gibbs Company. You are asked to interpret these accounts by answering the following questions:

a. What is the amount of cash paid in 19B that was an expense of 19A?

b. What is the amount of cash paid in 19B that will be an expense of 19C?

c. What is the amount of cash paid in 19B that is an expense of 19B?

d. What is the amount of rent expense in the December 31, 19B unadjusted trial balance?

e. What is the amount of rent expense in the 19B statement of profit and loss?

f. What is the amount of rent to be paid in 19C that was an expense of 19B?

g. What is the amount of rent paid in 19A that was an expense of 19B?

11. Accrued Interest Receivable

12/31/19A	115.00	1/1/19B	115.00
12/31/19B	175.00	1/1/19C	175.00

Interest Collected in Advance

1/1/19B	85.00	12/31/19A	85.00
1/1/19C	120.00	12/31/19B	120.00

Interest Income

1/1/19B	115.00	1/1/19B	85.00
12/31/19B	120.00	19B (Total cash received)	1,350.00
12/31/19B	1,375.00	12/31/19B	175.00
	1,610.00		1,610.00
1/1/19C	175.00	1/1/19C	120.00

The above three accounts were taken from the ledger of the Gilmore Company. You are asked to interpret these accounts by answering the following questions:

a. What is the amount of cash received in 19B that was income of 19A?

b. What is the amount of cash received in 19B that will be income of 19C?

c. What is the amount of cash received in 19B that is income of 19B?

d. What is the amount of interest income in the December 31, 19B unadjusted trial balance?

e. What is the amount of interest income in the 19B statement of profit and loss?

f. What is the amount of interest to be received in 19C that was income of 19B?

g. What is the amount of interest received in 19A that was income of 19B?

12. In adjusting the books and in preparing the statements for a business at the end of last year, the following errors were made:

Inventory of merchandise was understated.......	$1,000.00
Accrued interest receivable was overstated.......	8.00
Depreciation of building was overstated.........	100.00
Prepaid interest was overstated.................	11.00
Unearned rent was ignored......................	40.00

Determine the effect of each error, if not located and corrected, on the net profit for last year and this year, also the effect on the balance sheets at the end of last year and this year. Set up a form like the illustration below and insert your answers in the proper columns. Leave blank any spaces not needed for a particular item.

Error	Net Profit		Balance Sheet					
			Last year			This year		
	Last year	This year	Assets	Liab.	Prop.	Assets	Liab.	Prop.
Inventory of supplies omitted	Under $30	Over $30	Under $30		Under $30			

Chapter XV. Bad Debts, Depreciation, Obsolescence, Depletion

1. *a.* The following facts were selected from the balance sheets of the Jonathan Edwards Company:

December 31, 19A

Accounts Receivable..............	$12,500.00	
Less: Reserve for Bad Debts.......	375.00	$12,125.00

December 31, 19B

Accounts Receivable..............	$18,500.00	
Less: Reserve for Bad Debts.......	740.00	17,760.00

During the year 19B, $500.00 of uncollectible accounts were written off the books.

What adjusting entry was made as of December 31, 19B?

b. What would your entry have been if the dates December 31, 19A, and December 31, 19B, had been reversed?

2. The following facts were taken from the ledger of a corporation prior to making the adjusting entries as of each of the two indicated dates:

	December 31, 19A	December 31, 19B
Accounts Receivable............	$24,000.00	$30,000.00
Reserve for Bad Debts..........	80.00 (debit)	80.00 (credit)

As of December 31, 19A, the company officials decided that a 3 per cent reserve for bad debts would be reasonable; however, because of the general improvement in business conditions it was decided at the close of 19B that a 2 per cent reserve for bad debts would be reasonable.

Required:

a The adjusting journal entry as of December 31, 19A.

b. The adjusting journal entry as of December 31, 19B.

c. There were no bad debt recoveries during 19B. What was the amount of accounts written off as worthless during 19B?

d. In the year 19C a check was received from R. W. Owens covering his balance of $125.00, which had been written off as a bad debt in 19B, and $7.50 interest for the year that had intervened. Record.

e. Assuming that the Reserve for Bad Debts as of December 31, 19A, were $80.00 credit instead of debit, and as of December 31, 19B, were $80.00 debit instead of credit, answer parts *a*, *b*, and *c* again.

3. An auto truck was purchased on July 1, 19A for $1,000.00. The estimated scrap value was $250.00 and the estimated life was five years. Exactly five years after the date of purchase the truck was *sold* for cash and a new truck was purchased for $1,200.00 cash. The new truck had an estimated life of six years and an estimated scrap value of $300.00.

Required:

a. What was the amount to be recovered through depreciation on
  (1) The truck purchased July 1, 19A?
  (2) The truck purchased five years later?

b. What was the rate of depreciation on each truck?

c. Set up a Reserve for Depreciation of Auto Truck account and insert all figures, including the adjusting entry made as of December 31, 19F.

d. Present figures to show the book value of the first truck on the date it was sold.

e. Make the necessary entries in general journal form on July 1, 19F, assuming both trucks were involved in deals with the Superior Auto Company. The old truck was sold for $300.00. Terms cash.

f. How would your answer to *e* be changed if only $200.00 was received for the old truck?

g. How would your answer to *e* be changed if instead of selling the old truck for cash it was traded in and only the difference was paid in cash?

NOTE: Assume the books are adjusted as of December 31 of each year.

4.

	Case 1	Case 2	Case 3	Case 4	Case 5
Date of purchase of machine No. 1	2/1/19A	3/1/19A	4/1/19A	5/1/19A	6/1/19A
Manufacturer's selling price	$2,800	$3,000	$4,800	$5,000	$6,000
Freight and installation cost	140	230	270	300	450
Estimated scrap value	300	400	600	600	700
Estimated useful life	8 years	9 years	10 years	15 years	20 years
Date of trade-in of No. 1	9/1/19E	10/1/19E	5/1/19E	6/1/19E	2/1/19E
Trade-in allowance	$1,200	$1,400	$2,600	$3,000	$3,800
Manufacturer's selling price of machine No. 2	3,500	4,500	6,000	6,000	7,500

Assume:

a. The books are adjusted annually as of December 31.

b. In each case, cash was paid for the balance due on machine No. 2.

Required in each case:

a. Submit computation of the annual depreciation charge on machine No. 1.

b. Submit computation of the profit or loss from disposal.

c. Set up the Reserve for Depreciation of Machinery account and the Machinery account, and insert the necessary figures, including those made on the date of disposal.

d. Make all entries necessary as of the date of disposal in two-column general journal form.

5. The Acme Novelty Company was established on January 1, 19A. As its net earnings have been very low no depreciation has ever been provided on its books or statements. The bookkeeper followed the practice of debiting purchases of equipment to the asset account, but when any of the equipment was sold a credit was made to the asset account for the cash received from the sale.

The following account is taken from the ledger of the company:

Furniture and Fixtures

January 1, 19A	940 00	January 1, 19C	(a)	85 00
January 1, 19C	210 00	January 1, 19D	(b)	50 00
January 1, 19D	195 00	January 1, 19E	(c)	175 00
January 1, 19E	330 00	December 31, 19E (Balance)		1,365 00
	1,675 00			1,675 00
January 1, 19F (Balance)	1,365 00			

NOTE: (a) Cost $160.00 in 19A and had an estimated life of 10 years.
(b) Cost 85.00 in 19C and had an estimated life of 10 years.
(c) Cost 195.00 in 19D and had an estimated life of 10 years.

Assume that a reasonable rate of depreciation on furniture and fixtures is 10 per cent per annum.

Required:

a. Set up new accounts for Furniture and Fixtures and Reserve for Depreciation of Furniture and Fixtures and insert all necessary figures properly dated.

b. Submit figures to show the gain or loss from the sale of each of the three assets.

6. January 1, 19A, five cabs were purchased for cash, $900.00 each. Each cab had an estimated life of three years and an estimated residual value of $300.00. April 1, 19B, one of the cabs was completely destroyed in an accident. The insurance company paid $450.00 cash in full settlement of the loss. May 1, 19B, a new cab was purchased for $1,050.00 cash. Its estimated life was four years and its estimated residual value was $350.00. June 30, 19C, one

of the cabs purchased January 1, 19A was sold at its book value for cash.

Prepare general journal entries to record all the above facts, including the necessary adjustments as of December 31 of each year.

7. A commercial trucking company had the following transactions in connection with its trucks:

Purchases			Disposal				
Date	Truck No.	Cost Price	Date	Truck No.	Trade-in Allowance: Amount	Trade-in Allowance: On No.	Reason
5/1/19A	1	$5,000.00	3/1/19E	1	$ 800.00	5	Good trade-in.
7/1/19C	2	6,000.00	4/1/19D	2	4,100.00	3	Truck No. 2 too large.
4/1/19D	3	4,000.00					
9/1/19D	4	3,600.00					
3/1/19E	5	4,200.00					

Assume:

a. The estimated efficient life of each truck is four years.

b. All trucks were acquired from the Central Auto Dealers.

c. All settlements were made in cash.

d. The books are adjusted annually as of December 31.

Required:

a. Set up the Reserve for Depreciation of Trucks account and record therein all debits and credits resulting from the above facts, ending with December 31, 19E.

b. Present all figures to show the amount of profit or loss from the trade-in of each of the two trucks.

c. Make all journal entries necessary at the time each truck was traded in.

8. The Dunlap Supply Company purchased a building on October 1, 19A for $15,000.00. The estimated scrap value was $800.00 and the estimated life was 25 years.

On April 1, 19C, improvements costing $3,000.00 were completed but the estimated scrap value was not changed. The estimated life as of April 1, 19C was 25 years.

On July 1, 19D, the building was sold at a profit of $1,500.00.

Note: Assume the books are adjusted annually as of December 31.

Required:

a. The credit to the Reserve for Depreciation of Building account made as of
   (1) December 31, 19A.
   (2) December 31, 19B.
   (3) December 31, 19C.
   (4) July 1, 19D.

b. The book value shown by the balance sheet prepared as of December 31, 19B.

c. The book value as of July 1, 19D.

d. The cash received from the sale of the building.

e. All necessary entries in two-column general journal form as of July 1, 19D.

9. On April 1, 19A, the Marsh Manufacturing Company purchased a factory for $60,000.00, of which $10,000.00 was the value of the land and $50,000.00 the value of the building. The estimated life of the building was 30 years and its estimated scrap value was $1,200.00. The books are adjusted as of December 31 of each year.
On October 1, 19C, $5,000.00 of improvements to the building were completed. The life of the building was estimated at 30 years from October 1, 19C, and its estimated scrap value was $2,000.00.
On July 1, 19E, the building was sold at a loss of $1,800.00. The land was sold at a profit of $500.00.
Required:

a. The Reserve for Depreciation of Building account, showing every figure. Total and rule the account.

b. The book value (or unrecovered cost) of the building shown by the balance sheet prepared as of December 31, 19B.

c. The cash received from the sale of the building on July 1, 19E.

d. All necessary entries in two-column general journal form as of July 1, 19E.

10. In each of the following cases you are asked

a. To compute the annual depreciation cost before and after the improvements.

b. To set up the necessary asset and Reserve for Depreciation accounts and enter all debits and credits properly dated, assuming the books are adjusted each December 31.

c. To determine the profit or loss resulting from the disposal of the land and building for cash.

d. To make all entries on the date of sale in two-column journal form.

	Case A	Case B	Case C	Case D	Case E
Cash paid for					
Land 3/1/19A	$ 2,000	$ 3,000	$ 4,000	$ 5,000	$ 2,500
Building 3/1/19A	18,000	20,000	25,000	30,000	15,000
Improvements 7/1/19C	1,500	1,800	3,000	3,000	2,000
Estimated					
Salvage value 3/1/19A	$ 600	$ 1,600	$ 1,000	$ 1,500	$ 600
Salvage value 7/1/19C	700	1,800	1,200	1,800	700
Building life 3/1/19A	15 yrs.	20 yrs.	25 yrs.	25 yrs.	18 yrs.
Building life 7/1/19C	14 yrs.	18 yrs.	25 yrs.	23 yrs.	16 yrs.
Selling price					
Land 4/1/19E	$ 3,000	$ 2,800	$ 3,800	$ 5,500	$ 3,000
Building 4/1/19E	15,000	16,000	25,000	27,000	13,000

11. *a.* On January 1, 19A, O. D. Bell purchased a piece of land for $5,000.00 cash. For the building on this land he paid $25,000.00 cash. Two and a half years later $2,000.00 of building improvements were completed. These improvements were made to increase the revenue-producing possibilities of the property and did not change its estimated useful life of 20 years. There was no estimated scrap value. Assume adjustments each December 31.

On March 1, 19E, four years and two months after the date of acquisition, the property was sold at a profit of $2,500.00.

(1) Set up accounts for Land, Building, and Reserve for Depreciation of Building and insert the proper figures.

(2) Present figures to show the determination of the. price received for the land and building.

(3) Make all entries as of March 1, 19E.

b. Refer to part *a*. Assume that Bell had estimated the building to have a scrap value of $1,000.00, which was not changed because of the improvements. However, the improvements were of such a nature that the estimated life of the building after they were made was 20 years. Rework the problem in the light of these changes.

12. A mining company acquired coal land at a cost of $125,000.00. The estimated number of recoverable tons was 300,000. The estimated surface value of the land was $5,000.00.

Coal was mined as follows:

First year	25,000 tons
Second year	31,000 tons
Third year	33,000 tons
Fourth year	32,000 tons
Fifth year	37,000 tons

Required:

a. The computation of the depletion charge for each of the five years, the balance of the Reserve for Depletion account at the end of each year, and the book value of the coal deposit at the end of each year.

b. The entry to record depletion at the end of the first year.

13. The trial balance of the Mussler Oil Company included the following account balances at the end of 19A, which was the second year of operation:

Oil Deposit	$375,000.00
Reserve for Depletion	37,800.00
Drilling Equipment	19,000.00
Reserve for Depreciation of Drilling Equipment	3,800.00
Miscellaneous Physical Property	16,000.00
Reserve for Depreciation of Miscellaneous Physical Property	1,512.00

The original estimate of recoverable barrels of oil was 625,000 and the number of barrels extracted and sold in 19A was 70,000.

The drilling equipment was being depreciated over a five-year life.

The miscellaneous physical property, which will outlast the oil deposit, is being depreciated over the life of the oil deposit on a depletion basis in order to recover its cost less $1,000.00 estimated scrap value. (Units of performance method of depreciation.)

Prepare the entries to adjust the records for depletion and depreciation for the year 19A.

14. On January 2, 19A, a manufacturing company purchased machinery at an installed cost of $90,000.00. The estimated salvage value was $3,000.00 and the estimated life was 20 years. Early in 19E, the directors estimated that these machines would have to be scrapped in three more years and new machinery purchased as a new process had been discovered. On October 1, 19G, the above machinery was sold for $2,800.00 cash, and new machinery costing $98,000.00 was purchased. Terms on the new machinery were $60,000.00 cash and a 90-day 4 per cent interest-bearing note for the balance.

Required:

a. Set up the ledger accounts for Machinery and Reserve for Depreciation of Machinery and insert all necessary figures.

b. All entries in two-column general journal form necessary as of October 1, 19G.

Chapter XVI. Business Papers and Practices

1. Each of the following notes was discounted at 6 per cent:

	Case A	Case B	Case C	Case D	Case E	Case F
Face	$1,560	$3,150	$4,820	$1,250	$2,500	$3,750
Date of note*	April 12	June 30	Sept. 6	Jan. 7	Dec. 12	Feb. 15
Time to run	75 days	2 months	70 days	90 days	90 days	60 days
Interest rate	6%	4½%	7%	5%	6%	5%
Date discounted	May 6	Aug. 15	Oct. 1	Feb. 25	Feb. 16	Mar. 4

* Where necessary assume the year was not a leap year.

Required:
a. The date of maturity.
b. The maturity value.
c. The number of days for which the note was discounted.
d. The proceeds (discounted value) of the note.

2. *a.* In order to make an advantageous purchase of stock, $3,000.00 is needed. Compute the face value of a 90-day note which, when discounted at 6 per cent, will give the exact amount of money needed.

b. Merchandise was purchased today from Reynolds Brothers at a list price of $3,000.00 subject to trade discounts of 20 per cent, 10 per cent, and 5 per cent, and an additional 2 per cent cash discount if paid within 10 days. Compute the face value of a 90-day note which, when discounted at 6 per cent, will give the exact amount of money needed to settle the bill within the discount period.
What amount was saved by borrowing at 6 per cent to take advantage of the 2 per cent discount?
With what amount should the Purchases account be debited? Why?

3. On March 16 we sold Quinn and Company $2,700.00 of merchandise, terms cash $600.00 and a 75-day 6 per cent interest-bearing note for the balance. The note was dated March 16. On March 28 the note was discounted at the bank at a discount rate of 6 per cent.
At maturity Quinn and Company were unable to pay. Protest fees were $2.25.
Required:
a. The date of maturity.
b. The maturity value of the note.
c. The amount credited to our account by the bank on March 28.
d. The amount we will have to pay the bank because the note was dishonored.

e. The entry or entries in general journal form on our books at maturity, assuming that the contingent liability was set up on March 28.

f. The entry or entries in general journal form on the books of Quinn and Company at maturity.

4. On March 28 the Redding Company sold Gregg and Company $3,000.00 of merchandise, terms $600.00 cash and a 90-day 6 per cent interest-bearing note for the balance. The note was dated March 28. On April 15 the note was discounted at the bank at a discount rate of 6 per cent.

At maturity Gregg and Company were unable to pay. Protest fees were $2.50.

Required:

a. The date of maturity.

b. The maturity value of the note.

c. The amount credited to the account of Redding Company by the bank on April 15.

d. The amount Redding Company will have to pay the bank because the note was dishonored at maturity.

e. All entries in general journal form on the books of Redding Company from March 28 to the date of maturity, inclusive. You are to assume that Gregg and Company at maturity gave Redding Company a check for the interest, protest fees, and half the face value of the note.

f. All entries in general journal form on the books of Gregg and Company with due regard to the conditions in *e* above.

5.

April 3. Emory & Sons sold E. S. Rice $4,000.00 of merchandise, terms cash $400.00 and a 75-day 6 per cent interest-bearing note dated today for the balance.

May 9. The note was discounted at the bank. Rate of discount was 6 per cent.

Required:

a. Compute the discounted value of the note when discounted at the bank.

b. Entries in general journal form as of April 3 on the books of both Emory & Sons and E. S. Rice.

c. Entry in general journal form as of May 9 on the books of Emory & Sons.

d. Entries in general journal form on the books of Emory & Sons and E. S. Rice at the maturity of the note, assuming the maker paid it.

e. Entries in general journal form on the books of Emory & Sons and E. S. Rice if the maker did not pay the note at maturity. Assume the protest fees amounted to $3.50 and that Emory & Sons paid the bank and still hold the note.

f. On August 17 Emory & Sons received a check for $648.50 in part payment of the amount owed by E. S. Rice. Rice signed a new 6 per cent note for $3,000.00 running for 60 days from date. Make the entry or entries in general journal form on the books of Emory & Sons.

g. Forget the conditions of *f.* Suppose on August 17 you learned that E. S. Rice was hopelessly insolvent. Make the necessary entry on the books of Emory & Sons.

6. Make the necessary entries for the following note transactions in general journal form on *your* books only:

a. Received a 75-day 7 per cent note for $4,000.00 from the Wallace Wire Works.

b. Indorsed the Wallace Wire Works note to the Black Coal Company in part payment of an open account arising out of a real-estate deal. Discount was deducted at the rate of 6 per cent for the unexpired time. You held the note 12 days.

c. The Black Coal Company held the note 18 days and discounted it at the bank at the rate of 6 per cent.

d. At maturity the maker of the note was unable to pay. Protest fees amounted to $5.00. The Black Coal Company paid the bank and still holds the note.

Additional requirements:

a. With what amount was the bank account of the Black Coal Company credited at the time the note was discounted?

b. How much was earned

(1) By you for the 12 days you held the note?

(2) By the Black Coal Company for the 18 days it held the note?

(3) By the bank for the 45 days it held the note?

c. Can you explain why the Black Coal Company and the bank earned less interest each day than you earned?

7. You received two 90-day 6 per cent notes for $2,400.00 each. One of the notes, signed by R. G. Wald, was discounted at the bank after you had held it 63 days; the discount rate was 6 per cent. The other note was signed by W. G. Briggs and was held until maturity. At maturity neither note was paid. The bank charged your account with the maturity value of the Wald note plus $2.25 protest fees. Record the receipt of both notes, the discounting of the Wald note, and your entries at the maturity date of each note.

8. Make the entries for the following transactions in general journal form on *your* books only:
   a. You drew a check payable to the Garden City Bank for $300.20 to obtain a bank draft for $300.00 payable to E. W. Allen, a creditor. The $.20 covered the exchange fee.
   b. Beebe, a customer, owed you $850.00 that was past due. Today he sent you a 60-day sight draft drawn by him on Johnston in favor of you for $550.00 and his own 30-day note for the balance, with 6 per cent interest included in the face of the note. Johnston accepted the draft.
   c. Platt settled his account by turning over to you a check for $210.-30 and your own promissory note for $300.00 drawn in favor of James Mathis and assigned to Platt. The accrued interest to date on this note was $19.50.
   d. You drew your own personal check to pay a business note drawn in favor of W. S. Hofer for $300.00 and accrued interest for 60 days.

9. In general journal form make the entries for the following transactions on the books of the drawer, drawee, and payee. Your answer should be submitted in parallel columns.
   a. Hemm owed Stitch $600.00 that he had been unable to collect. Stitch drew a sight draft on Hemm payable to himself and has just received word from the bank that his account has been credited with the face of the draft less $.50 for collection charges.
   b. Cole owed Hogan $1,000.00. Kelly owed Cole $700.00. A check for $300.00 and a 60-day draft were used to cancel all indebtedness on open account. Assume the draft was accepted when presented.
   c. Elliott received a 30-day draft for $450.00 which Powell drew on Nelson. Nelson accepted.
   d. A 30-day trade acceptance for $250.00 was drawn by Dawson on McDonald. McDonald accepted it.

Chapter XVII. Business Papers and Practices (*Continued*)

NOTE: In solving the problems of this chapter assume no undeposited receipts of cash, no omissions or other errors, unless so indicated. Assume also that the figures taken from the bank records are correct.

1. The following facts were taken from a retailer's checkbook and his bank statement:

	Check-book	Bank records
April 1. Balance (correct figures)...............	$3,791.86	$4,105.24
April deposits before corrections.................	8,960.35	?
Total checks drawn during April before corrections	6,018.19	

Errors made during April:		
Counter check	$ 0	$ 328 24
Collection of note of J. Jones	0	450.00
Collection charge on note of J. Jones	0	0.75
Deposit of April 17	28.42	82.42
Check 410	183.14	138.14

Assume no checks were outstanding on April 30.

Required:

a The amount credited to the account of the retailer by the bank during April.

b. The amount of checks returned by the bank as paid in April.

c. The uncorrected checkbook balance as of April 30.

d. The correct checkbook balance as of April 30.

e. Proof that the checkbook is reconciled with the bank as of April 30.

2. The following facts were taken from a company's checkbook and its bank statement:

	Check-book	Bank records
April 1. Balance (correct figures)	$8,750.00	$ 9,125.00
April deposits	?	12,360.00
Total of checks returned by the bank as of April 30		10,890.00
Items in transit and errors made during April:		
Deposit in the mail; not received by the bank but entered in the checkbook	500.00	0
N.S.F. check	0	150.00
Dishonored note of G. Y. Pipp	0	600.00
Protest fee	0	1.50
Deposit of April 12	325.00	352.00
Check 1,982	817.00	871.00

Assume no checks were outstanding on April 30.

Required:

a. The amount of deposits recorded in the checkbook during April.

b. The uncorrected amount of the checks drawn during April.

c The uncorrected checkbook balance as of April 30.

d. The correct checkbook balance as of April 30.

e. The correct bank balance as of April 30.

f. Proof that the checkbook is reconciled with the bank as of April 30.

3. On September 30 a checkbook showed a balance of $18,920.00 after corrections for all errors made during the month. On that date there were certain items in transit:

Check 722	$248.30
Check 734	315 65
Deposit in the mail but entered in the checkbook	425.00

Deposits credited by the bank during October totaled $33,115.29.
Checks paid in October by the bank totaled $30,526.93.
Outstanding checks on October 31 totaled $832.75 all of which were issued during October.
The following differences were discovered in reconciling as of October 31:

	Check-book	Bank records
Check 765	$737.98	$787.98
October 22 deposit	990.45	909.45
Deposit mailed October 31 not credited by the bank but entered in the checkbook.	850.00	0

Required:
a. The balance shown by the bank statement as of September 30.
b. The balance shown by the bank statement as of October 31.
c. The total checks drawn during October as shown by the checkbook prior to making any corrections.
d. The uncorrected checkbook balance as of October 31.
e. The correct checkbook balance as of October 31 using checkbook figures.
f. Reconciliation figures.

4. From the following information you are asked to prepare statements to show:
a. The uncorrected checkbook balance as of October 31.
b. The correct checkbook balance as of October 31.
c. The balance shown by the bank as of October 31.
d. Reconciliation figures.

		Check-book	Bank records
October	1. Balance (correct figures)	$2,307.98	$2,500.98
	3. Deposit	250.09	250.09
	6. Deposit	213.17	217.13
	12. Deposit	451.25	451.25
	18. Collection of O. G. Ogden draft	0	200.00
	26. Deposit	261.44	216.44

Your checkbook stubs reveal the following checks drawn:

214	$222.22
215	112.19
216	14.16
217	460.00
218	120.00
219	136.78
220	421.15
221	362.40
222	111.19
223	90.00
224	600.80

The canceled checks returned by the bank are:

211	$100.00
213	73.00
214	222.22
215	112.19
216	14.61
217	460.00
218	120.00
222	111.19
224	608.00

The bank charged your account with the following:

Note for $500.00 signed by I. M. Short and discounted by you.	$502.50
Collection charges	.80
Not entered in the checkbook	$503.30

5. The new bookkeeper of the Fraley Fruit Company came to you in distress because he could not reconcile the balance of his checkbook with the balance shown on the bank statement.

Your examination of the checkbook stubs revealed that the bookkeeper should take a good course in Arithmetic. A copy of the checkbook follows:

February	1.	Balance		$1,028.00
		Check 161	$224.00	
		Check 162	15.84	
		Check 163	25.84	266 68
				$ 761.32
		Check 164	$ 18.76	
		Check 165	14.64	
		Check 166	18.58	50.98
				$ 700.34
	10.	Deposit		559.36
				$1,259.70
		Check 167	$113.48	
		Check 168	147.68	
		Check 169	193.40	445.66
				$1,705.36
	18.	Deposit		380.00
				$2,085.36
		Check 170	$192.50	
		Check 171	69.84	
		Check 172	77.08	339.42
	28.	Balance		$1,745.94

On February 1 the following three checks were outstanding:

156	$ 51.23
158	84.00
160	102.77

The February bank statement showed the following information:

February 1.	Balance		$1,266.00
10.	Deposit	$553.96	
18.	Deposit	380.00	933.96
			$2,199.96
	Checks paid:		
	156	$ 51.23	
	160	102.77	
	161	224.00	
	162	15 84	
	164	18.76	
	165	14 64	
	166	15 88	
	168	147.68	
	169	193.40	
	Counter check	60.00	
	170	195.20	
	172	77.08	1,116.48
28.	Balance		$1,083.48

Prepare statements to show the computation of

a. The correct checkbook balance as of February 28, using the uncorrected checkbook balance as of February 28 as the starting point.
b. The reconciliation of the bank and checkbook balances.

Chapter XVIII. The General and Subsidiary Ledgers—Controlling Accounts

1. Rule a columnar cash receipts journal similar to the one on page 257 and record the following transactions:

NOTE: Possible entries in other journals are assumed to be recorded correctly.

May 1. Cash balance forwarded from April 30, $9,250.00.
4. Received a check from B. L. Carson covering his 60-day 6 per cent note due today. Face of the note $1,000.00.
7. Received a check from L. D. Hall for $490.00 covering our sale to him on May 2, subject to 2 per cent discount if paid within 5 days.
9. Received a check for $100.00 from J. D. Smith for May rental of the third floor of our building.

14. Received a check for $9.00 from J. A. Connor as a result of our overpayment to him for merchandise bought in April. We had sent him a check for $298.00 instead of $289.00.
18. Received a check from F. A. McVay for the balance due on our sale to him on May 9. On May 9 he purchased $700.00 of merchandise, terms 2/10, n/30. On May 11 he returned $100.00 of merchandise that had been received in a damaged condition and we allowed full credit.
20. Received a check from H. T. Brown for $3,743.60 for merchandise sold him 10 days ago but subject to a 2 per cent discount if paid by today.
24. T. C. Blair paid $500.00 on account.
27. Discounted our own 60-day $2,000.00 note at the bank. Rate of discount 6 per cent.
31. Cash sales for the month of May totaled $3,000.00:

Department A	$1,200.00
Department B	1,000.00
Department C	800.00

NOTE: Only credit sales are recorded in the sales journal.

Rule and total the several columns. Under each money-column total indicate whether the column is posted by item, by total, by item and by total, or not posted.

Additional requirements:

a. If you had overadded the Sales Discounts column by $10 00 and underadded the Cash column by $10.00,
  (1) Would the debit and credit totals be equal?
  (2) Would the trial balance of the general ledger balance?
  (3) Would such a trial balance have the correct totals? Explain.

b. If you had overadded the General Ledger column by $10.00 and overadded the Sales Discounts column by $10.00,
  (1) Would the debit and credit totals be equal?
  (2) Would the trial balance of the general ledger balance? Explain.

c. If, by error, you had entered the credit of $500.00 to T. C. Blair in the General Ledger column and posted to the subsidiary ledger, what correcting entry would be necessary in the general journal if the error were discovered after all postings for May?

d. What is the total amount of all debit postings made from this journal?

e. What is the total amount of all credit postings made from this journal?

f. Explain fully why the trial balance balances when the total debits and total credits posted from this journal are not the same.

2. Rule a columnar cash disbursements journal similar to the one on page 260 and record the following transactions:

NOTE: Possible entries in other journals are assumed to be recorded correctly.

March 1. Purchased office equipment from R. Saunders for $400.00 cash.

2 Gave a check to S. Thomas to cover a $1,300.00 merchandise purchase of 10 days ago that was subject to a 1 per cent discount if paid by today.

3. A $75.00 check of B. S. Black, a customer, which we deposited on March 1, was returned by our bank marked "Not Sufficient Funds."

4. Sent a check to B. C. Carr covering our 60-day 6 per cent note due today. Face of the note $2,500.00.

8. Sent a check to G. E. Cook for the balance on our purchase of February 26. On February 26 we purchased $850.00 of merchandise, terms 2/10, n/30. On March 1 we returned $75.00 of damaged goods and received a credit memorandum.

10. Sent a check for $80.00 to the Pennsylvania Coal Company for coke purchased to heat the store. The bill had been left last week by the driver of the truck and had been recorded by the bookkeeper.

12. Because of a threatened shortage the proprietor purchased a set of new spark plugs for the delivery truck for $4.80. A check was given the Garden Garage Company at the time of purchase.

14. Sent a check for $3,643.20 to the A. R. White Company to cover our purchase of March 4 on which the terms were 1/10, n/30.

15. Paid $350.00 for salaries for the first half of the month.

18. Purchased stock in the ABC Company for $1,520.00 cash. The check was made payable to the Bonded Brokerage Company.

20. Paid our $1,250.00 60-day 6 per cent note due today. The payee was P. R. Ray, who indorsed the note to R. P. Day.

22. B. V. Dee, the proprietor, drew a business check to cover his $250.00 personal life-insurance premium due this week.

24. A cash purchase of merchandise for Department A was made for $200.00 from the Union Supply Company.

NOTE: Only credit purchases are recorded in the purchase journal.

28. A bill was received from the Jiffy Press for advertising pamphlets to be distributed to customers. A check for $25.00 was immediately sent to cover.

31. Paid $350.00 for salaries for the last half of the month.

Rule and total the several columns. Under each money-column total indicate how the column should be posted.

Additional requirements:

a. If you had overadded the Purchase Discounts column by $10.00 and underadded the Cash column by $10.00,

(1) Would the debit and credit equality in this journal be maintained?
(2) Would the trial balance of the general ledger balance?
(3) Would such a trial balance have the correct totals? Explain.

b. If you overadded the General Ledger column by $10.00 and underadded the Accounts Payable column by $10.00,
(1) Would the debit and credit equality in this journal be maintained?
(2) Would the trial balance of the general ledger balance? Explain.

c. If, by error, on March 4 you had debited B. C. Carr in the Accounts Payable column with $2,525.00 and had posted, what correcting entry would be necessary in the general journal?

d. What is the total amount of all debit postings made from this journal?

e. What is the total amount of all credit postings made from this journal?

f. Explain fully why the trial balance balances when the total debits and total credits posted from this journal are not the same.

3. Rule a six money-column general journal similar to the one on page 263 and record the following transactions:

March 2. Received a 30-day 6 per cent note for $400.00 from W. N. Noble, a customer.

4. Returned merchandise to G. W. Strong and received credit for $80.00.

5. In checking the sales invoices of last month, we discovered that a sale of $600.00 to W. A. Bright was recorded in the sales journal as a sale to W. A. Wright.

7. The account of L. A. Wynne appeared in our customers ledger with a balance of $265.00 and in our creditors ledger with a balance of $175.00. A 30-day 6 per cent interest-bearing note was used to settle the balance.

9. G. E. Camp, a customer, gave us a comptometer worth $75.00 in part satisfaction of the balance he owed. The proprietor had been unable to buy one and was happy to acquire it.

10. B. V. Allison, a customer, deducted $8.00 for freight he paid on goods we sold him f.o.b. destination and sent a check for the net amount due. Record the freight.

13. Gave our 60-day 6 per cent note for $500.00 and a $1,000.00 note signed by R. E. Wolfe with $6.00 accumulated interest to T. W. Bowers in part satisfaction of the balance due Bowers on open account. Bowers allowed us credit for the interest.

17. Received a check for $120.00 in full settlement of a $200.00

balance owed us by L. L. Dee whose business had gone through receivership. Write off the uncollected balance.

20. Last month we discounted an $800.00 note received from C. R. Adams. The note matured today and Adams paid the bank.
25. A $10.00 credit memorandum was sent to T. M. Platt, a customer, because of an error in addition on an invoice sent to him several days ago.
29. On March 26 we sent a check for $1,862.00 to Tracy Company in full payment of our merchandise purchase of March 20, which was subject to 2 per cent discount if paid within 10 days. The bookkeeper debited Tracy and Sons in the cash disbursements journal and posted accordingly to the accounts payable ledger.

Rule and total the several columns. Indicate under each money column how the total should be posted.

4. Refer to problem 3.
   a. What is the total of the amounts to be posted to the debit side of general ledger accounts?
   b. What is the total of the amounts to be posted to the credit side of general ledger accounts?
   c. What is the total number of items to be posted to the debit side of general ledger accounts?
   d. What is the total number of items to be posted to the credit side of general ledger accounts?
   e. Suppose you had made an error and placed the $500.00 credit to Notes Payable on March 13 in the Accounts Payable column, although posted properly to the Notes Payable account in the general ledger.
      (1) Would the debit and credit totals in the general journal balance?
      (2) Would the trial balance of the general ledger balance?
      (3) If your answer to part 2 is yes, would such a trial balance have the correct totals? Explain why or why not.
      If your answer to part 2 is no, by how much would the trial balance be out of balance?
   f. Suppose you had made an error on March 2 and placed the $400.00 credit to W. N. Noble in the Accounts Payable column and posted to the accounts payable ledger.
      (1) Would the debit and credit totals in the general journal balance?
      (2) Would the trial balance of the general ledger balance?
      (3) If your answer to part 2 is yes, would such a trial balance have the correct totals? Explain why or why not.

If your answer to part 2 is no, by how much would the trial balance be out of balance?

5. A retail business had an accounts receivable subsidiary ledger and an accounts payable subsidiary ledger. The bookkeeper ran off the balances in each ledger and found

	Case A	Case B
Accounts Receivable ledger:		
Debit balances totaled....	$18,645.00	$25,450.00
Credit balances totaled....	455.00	550.00
Accounts Payable ledger:		
Credit balances totaled....	8,650.00	11,880.00
Debit balances totaled....	270.00	650.00

Required:

a. The balance of the Accounts Receivable controlling account in the general ledger.

b. The balance of the Accounts Payable controlling account in the general ledger.

c. The amount of the Accounts Receivable in the balance sheet.

d. The amount of the Accounts Payable in the balance sheet.

Chapter XIX. Columnar Journals and Petty Cash Systems

1. *a.*

CASH DISBURSEMENTS JOURNAL (Month of March 19A)

Date	Account	Explanation	F	General Ledger	Accounts Payable	Cash Purchases	Purchase Discounts	Cash
3	A. V. Beck	Pur. of 2/24			850.00		17 00	833 00
8	Notes Payable	Howe's note		500 00				
	Interest Expense	On above note		5 00				505.00
15	Cash Purchases	March 1–15	√			180 00		180.00
16	{ C. L. Boyd	N.S.F. check		30 00				30.00
	{ Accounts Receivable							
18	F. H. Good	Pur. of 3/8			350.00		7.00	343 00
23	A. S. Dodd, Personal	Life ins. prem.		125 00				125.00
30	Salaries	For March		650.00				650.00
31	Cash Purchases	March 16–31	√			320 00		320.00
				1,310.00	1,200 00	500 00	24 00	2,986.00
						(√)		

b.

CASH RECEIPTS JOURNAL (Month of March 19A)

Date	Account	Explanation	F	General Ledger	Accounts Receivable	Cash Sales	Sales Discounts	Cash
3	R. S. Todd, Capital	Invested		1,500 00				1,500.00
8	D. E. Rudd	Sale of 2/28			350.00		7.00	343.00
12	Notes Receivable	Pratt's note		600.00				
	Interest Income	On above note		6.00				606.00
15	Cash Sales	March 1–15	√			465.00		465.00
20	R. J. Frank / Accounts Payable	In full		320.00				320.00
24	H. J. Good	Sale of 3/14			750.00		15.00	735.00
31	Cash Sales	March 16–31	√			595 00		595 00
				2,426 00	1,100 00	1,060 00	22 00	4,564 00
						(√)		

NOTE: √ means not posted.

Required for each of the above journals:

(1) What was the total amount of debits, if any, posted to the accounts receivable ledger? Credits posted to the accounts receivable ledger?

(2) What was the total amount of debits, if any, posted to the accounts payable ledger? Credits posted to the accounts payable ledger?

(3) What was the total amount of debits posted to the general ledger? Credits posted to the general ledger?

(4) How many debit items were posted, if any, to the accounts receivable ledger? Credit items posted to the accounts receivable ledger?

(5) How many debit items were posted, if any, to the accounts payable ledger? Credit items posted to the accounts payable ledger?

(6) How many debit items were posted to the general ledger? Credit items posted to the general ledger?

2. The following facts were taken from the columnar journals of the Meade Market at the end of January, the first month of its existence. Prepare a trial balance after making the necessary postings. The data immediately following are the totals of the several columns in the journals indicated.

Cash Receipts Journal		Cash Disbursements Journal	
General Ledger.........	$2,490.00	General Ledger.........	$ 780.00
Accounts Receivable....	1,718.60	Accounts Payable.......	1,740.56
Sales Discounts.........	34.21	Purchase Discounts.....	25.14
Cash..................	4,174.39	Cash..................	2,495.42

Sales Journal		Purchase Journal	
Accounts Receivable....	$2,448.15	Accounts Payable......	$4,372.25
Sales—Meats...........	1,523.59	Purchases—Meats......	2,475.08
Sales—Groceries........	924.56	Purchases—Groceries...	996.57
		Sales Expenses.........	158.70
		Administrative Expenses	86.23
		Sundries...............	655.67

General Journal

Debit		Credit
$ 25.00	Accounts Receivable	$ 250.00
1,410.00	Accounts Payable	25.00
250.00	General Ledger	1,410.00

The Sundries column of the purchase journal and the General Ledger columns of the cash receipts, the cash disbursements, and the general journals contain the following items:

Purchase Journal: Advertising $50.00; Sales Equipment $500.00; Office Equipment $105.67.

Cash Receipts Journal: Meade's Capital $1,800.00; Notes Payable $500.00; Sales—Meats $190.00.

Cash Disbursements Journal: Salaries $320.00; Rent $185.00; Heat and Light $65.00; Petty Cash $50.00; Delivery Truck Expenses $90.00; Sales Expenses $70.00.

General Journal Debit: Delivery Truck $250.00.

General Journal Credit: Meade, Capital $1,250.00; Purchase Returns —Meats $160.00.

3. Prepare a petty cash book with columns for Receipts subdivided into Date and Amount; also columns for Date, Explanation, Petty Cash, Sales Expenses, Office Expenses, Postage, and Sundries subdivided into Amount, F, and Account.

Make the necessary entries to record the following in the petty cash book.

March 1. Drew a $150.00 check to create a petty cash fund.
2. Purchased 100 three-cent stamps and 150 two-cent stamps.
7. Paid $10.00 for cleaning, of which $7.00 was for cleaning show-cases and sales windows and $3.00 was for cleaning the office.
10. Gave the driver $2.75 for oil and gas for the delivery truck.

12. Paid $0.78 for parcel-post items mailed from the office.
14. Advanced $10.00 to Randolph Hahn with the understanding it would be deducted from his next pay.
17. Cashed a $10.00 check for T. E. Derner, with the permission of the proprietor.
20. The proprietor, C. C. Case, took $10.00 for his personal use.
22. Paid $5.00 to the Pure Water Company employee for bottled water; $3.50 applied to the store and $1.50 to the office.
25. Paid $20.00 to the Jones-Williams Company when their representative called today and the proprietor was not in to sign the check. The bill had previously been entered in the purchase journal.
28. It was decided that a $100.00 petty cash fund would be sufficient, so $50.00 of petty cash was returned to cash and deposited in the bank.
31. Paid $12.00 for office supplies purchased from the Every-Need Supply Company.

Assume the imprest system is used, so reimburse the petty cash drawer for the amount spent. Rule, balance, and total the petty cash book.

Prepare a cash disbursements journal and record the entry when the fund was created and the entry at the time of reimbursement.

4. Robert LaBarthe operated a wholesale business. His accounting records provided for a general ledger and two subsidiary ledgers—one for accounts receivable and one for accounts payable. Prepare a columnar sales journal to include a debit column for cash sales and three credit columns for sales of Departments A, B, and C. Prepare a cash receipts journal with five money columns: General Ledger, Accounts Receivable, Cash Sales, Sales Discounts, and Cash. Prepare a general journal similar to the one on page 263. Enter the following, assuming entries required in other journals are recorded by other bookkeepers.

April 1. Cash balance $3,875.00.
2. Sold merchandise to W. R. Belmont $1,250.00, terms $250.00 cash and a 30-day 6 per cent note for the balance. This sale included $900.00 from Department A, $150.00 from Department B, and $200.00 from Department C.
3. A. G. Oaks, a customer, gave us a check to cover his $350.00 purchase of March 24, less 1 per cent discount.
4. Discounted a 60-day noninterest-bearing note dated March 17 and signed by the Acme Supply Company, a customer. Face of the note $645.00. Discount rate 5 per cent.
5. Sold merchandise to C. S. Towne $500.00, terms 1/10, n/30. The sale was divided evenly between Departments A and B.

7. Cash sales for the week ending today were $800.00 divided as follows: Department A, $350.00; Department B, $300.00; and Department C, $150.00.
9. An employee gave the bookkeeper $1.20 to cover the cost of business stamps used to mail a personal package.
12. Received a check from R. T. Holmes for his $250.00, 60-day 6 per cent note that matured today.
13. Sold merchandise from Department C to J. K. Lawrence for $300.00. Drew a 10-day sight draft on him for $300.00. He accepted.
14. Of the merchandise that we purchased for Department A earlier this week for cash from the Bell Supply Company, $12.00 was returned and the money refunded.

    Cash sales for the week ending today were $750.00 divided as follows: Department A, $240.00; Department B, $320.00; and Department C, $190.00.
16. Received a check from C. S. Towne for the net amount due on his purchase of April 5. As it was mailed within the 10-day limit, he received credit for the discount.
17. Sold merchandise $950.00 from Department A to J. L. Crouch Company, terms, 1/10, n/30.
18. B. H. Blatt returned $65.00 of cash to us with a notation that three months had passed since he had given us a credit memorandum for returned merchandise and no additional order had been placed.
21. J. L. Crouch Company returned $80.00 of the merchandise purchased on April 17. A credit memorandum was issued.
23. Collected the $300.00 10-day draft drawn on J. K. Lawrence on April 13.
24. The bookkeeper noted that the cash sales for the week ending April 21 had not been recorded. The total was $800.00 divided as follows: Department A, $450.00; Department B, $280.00; and Department C, $70.00.
25. The note that we received from D. R. Robb on March 28, which was discounted at the bank on March 31, matured today. It was a $400.00 30-day noninterest-bearing note which Robb received from his customer, B. F. Isaacs. Protest fees amounted to $1.50. Robb gave us his own 30-day 6 per cent note to cover.
26. J. N. Muncy's account appeared in the customers ledger with a balance of $500.00. An account with him also appeared in the creditors ledger for $350.00. Received a check for the difference in settlement of both accounts.
27. Received a check from J. L. Crouch Company for the net amount due on their purchase of April 17.
28. Sold merchandise to Wills and Company equally divided between Departments A, B, and C. Terms: Trade discount of 20 per cent, and an additional discount of 1 per cent if paid within 10 days, 30 days net. List price of the merchandise $1,500.00.

Cash sales for the week ending today were $900.00 divided as follows: Department A, $510.00; Department B, $275.00; and Department C, $115.00.

30. In the payroll of last week, Thomas Craig was given $1.00 more than was due him. He returned the excess today.

Rule and total each journal.

After all postings, including those made at the end of the month, were made from the cash receipts journal,

a. What was the total of the amounts, if any, posted to
 (1) The debit side of accounts in the accounts receivable ledger?
 (2) The credit side of accounts in the accounts receivable ledger?
 (3) The debit side of accounts in the accounts payable ledger?
 (4) The credit side of accounts in the accounts payable ledger?
 (5) The debit side of accounts in the general ledger?
 (6) The credit side of accounts in the general ledger?

b. Indicate the total number of items, if any, that were posted to each of the six places indicted in *a* above.

5. Wilbur Moore operated a wholesale business. His accounting records provided for a general ledger and two subsidiary ledgers—one for accounts receivable and one for accounts payable. Prepare a columnar purchase journal to include a credit column for cash purchases, three debit columns for purchases of Departments A, B, and C, Store Expenses, Office Expenses, and Sundries. Prepare a cash disbursements journal with five money columns: General Ledger, Accounts Payable, Cash Purchases, Purchase Discounts and Cash. Prepare a general journal similar to the one on page 263. Enter the following, assuming entries required in other journals are recorded by other bookkeepers.

May 1. Received an invoice and the following material from the Woods Supply Company:

Supplies for use in the salesroom.	$35.00
Supplies for use in the office....	40.00

3. Sent a check to R. B. Hood for our purchase of April 24 of $850.00, less the 2 per cent discount for payment within 10 days.

5. Purchased merchandise from H. T. Gordan $1,400.00, terms 2/10, n/30. This purchase included $500.00 for Department A and the balance for Department C.

6. W. D. Davis, a customer, paid his account in full yesterday but failed to deduct $15.00 discount to which he was entitled, so we sent him a check for $15.00 to cover.

7. G. A. Downs, a creditor, sent us a $25.00 credit memorandum covering merchandise that we returned from Department C because it was received by us in a damaged condition.

8. Made a cash purchase of merchandise from George Parke for Department C. Amount $125.00.
9. Purchased merchandise for $1,800.00 from Robert W. Bell Company, terms $800.00 cash and a 60-day 6 per cent note for the balance. Department A, $900.00; Department B, $900.00.
11. You discover that you made an error in the cash receipts journal during April. A check for $1,212.00 from H. G. Fogg to cover his $1,200.00 60-day 6 per cent note was recorded as a credit to H. G. Fogg in the Accounts Receivable column of the cash receipts journal. Correct the error.
12. Sold merchandise to the Vaux Corporation, terms f.o.b. our warehouse. For the convenience of the customer we prepaid the $45.00 freight. Our check was made payable to the Pennsylvania Railroad Company.
14. Purchased a secondhand safe from the G. C. Royce Company for use in the office. Terms on account. Cost price $250.00.
15. Sent a check for $50.00 to the Universal Advertising Company to cover advertising for one month in one of their publications. Sent a check to H. T. Gordan for our purchase of May 5, less the discount.
16. Robert Brown owed us $250.00. We owed him $650.00. Gave him a 30-day note for $400.00 in full settlement.
19. Received from A. G. Hall, a customer, a note signed by R. E. Royal for $1,000.00 with $4.00 accumulated interest when Hall endorsed it to us. We gave Hall credit for $1,004.00.
20. In checking our purchase invoices of last month we discovered that R. T. Reed overadded his invoice $10.00. The bill had not been paid. Correct the books, assuming the merchandise was purchased for sale in Department B.
21. The bookkeeper drew a check for $250.00 to cover the personal insurance premium owed by the owner on a policy on his life. The policy was made payable to Mrs. Wilbur Moore.
22. Received word from the bank that T. V. Boyd's note, which we had discounted, was not paid at maturity. The face of the note was $1,300.00. It was a 60-day 6 per cent note, which we had discounted 30 days before maturity. The protest fees were $2.50.
23. $500.00 of merchandise for Department A arrived this morning from P. G. Manufacturing Company, terms cash. It was bought under f.o.b. destination terms. We sent a check for $470.00. We deducted $30.00 for the freight that we paid on its arrival.
25. The delivery truck skidded and was damaged. Drew a check for $36.00 payable to the Jiffy Repair Company to cover the necessary repairs.
26. A store clerk, A. E. Stadt, asked for a $25.00 advance on his wages. A check was given. It is to be deducted from his wages next week.
28. Purchased $2,500.00 of merchandise from H. G. Allen, terms 1/10, n/30. Of this merchandise, $1,300.00 was for Department A and the balance for Department C.

29. As May 30 was a holiday and the employees were having a picnic, the proprietor paid the salaries for the month less the advance made May 26. Paid today, store salaries $450.00, office salaries $225.00.

Rule and total each journal.

After all postings, including those made at the end of the month, were made from the cash disbursements journal,

a. What was the total of the amounts, if any, posted to
   (1) The debit side of accounts in the accounts receivable ledger?
   (2) The credit side of accounts in the accounts receivable ledger?
   (3) The debit side of accounts in the accounts payable ledger?
   (4) The credit side of accounts in the accounts payable ledger?
   (5) The debit side of accounts in the general ledger?
   (6) The credit side of accounts in the general ledger?

b. Indicate the total number of items, if any, that were posted to each of the six places indicated in *a* above.

PRACTICE SET 2-A

William Wible Problem in Columnar Books

This problem is a continuation of Practice Set 1-*A*.

William Wible was pleased with the results of his first month in the office equipment and supply business. He foresees the need of information that will enable him to determine the gross profit on each line of merchandise handled. He anticipates a growth in the volume of credit business and wishes proper controls over accounts receivable and payable. You are instructed to set up records to comply with his wishes.

The necessary blank books and papers for this problem may be obtained from the publishers of this text—Practice Set 2-*A* or 2-*B*.

The rulings of each columnar journal appear below. As each journal is a separate book, the page numbers of each begin with 1. Where necessary write in column headings as indicated in the following forms. Do not use columns other than those for which headings appear below.

GENERAL JOURNAL

Debit			F	Date Accounts and Explanation	F	Credit		
Accounts Receivable	Accounts Payable	General Ledger				General Ledger	Accounts Receivable	Accounts Payable

PETTY CASH BOOK

Receipts		Date	Explanation	Credit Petty Cash	Debit		
Date	Amount				Office Expenses	Store Expenses	Postage

PETTY CASH BOOK (*Continued*)

		Sundry Debits		
Delivery Truck Expenses	Stationery and Printing	Amount	F	Account

CASH RECEIPTS JOURNAL

Date	Accounts and Explanation	F	Credit			Debit	
			General Ledger	Accounts Receivable	Cash Sales	Sales Discounts	Cash

CASH DISBURSEMENTS JOURNAL

Date	Accounts and Explanation	F	Debit			Credit	
			General Ledger	Accounts Payable	Cash Purchases	Purchase Discounts	Cash

PURCHASE JOURNAL

Date	Accounts	Terms	F	Credit		Debit	
				Accounts Payable	Cash Purchases	Purchases Pep Typewriters	Purchases Speedo Typewriters

PURCHASE JOURNAL (*Continued*)

Purchases Noiseless Typewriters	Purchases Jump-a-Line Machines	Purchases Desks and Chairs	Purchases Desk Lamps	Purchases Envelope Sealers, etc.	Purchases Office Supplies	Sundries		
						Amount	F	Account

SALES JOURNAL

Date	Accounts	Terms	F	Debit: Accounts Receivable	Debit: Cash Sales	Credit: Sales Pep Typewriters	Credit: Sales Speedo Typewriters

SALES JOURNAL (*Continued*)

Sales Noiseless Typewriters	Sales Jump-a-Line Machines	Sales Desks and Chairs	Sales Desk Lamps	Sales Envelope Sealers, etc.	Sales Office Supplies

The ledger booklet is divided into three parts—general ledger, accounts receivable subsidiary ledger, and accounts payable subsidiary ledger. The first page of each ledger should be used for index purposes. The index should be set up in the general ledger before posting any items. In each subsidiary ledger the index should be developed as each new account is opened. For posting purposes each account is assumed to be a separate page.

The general ledger accounts to be used in solving this problem should be set up in the following order:

Balance Sheet Accounts

1. Cash
2. Petty Cash
3. Accounts Receivable
4. Notes Receivable
5. Notes Receivable Discounted
6. Accrued Interest Receivable
7. Merchandise Inventory
8. Investment—Preferred Stock
9. Prepaid Insurance
10. Prepaid Salaries
11. Inventory of Postage
12. Inventory of Coal
13. Land
14. Building
15. Reserve for Depreciation of Building

Profit and Loss Accounts

30. Sales—Pep Typewriters
31. Sales—Speedo Typewriters
32. Sales—Noiseless Typewriters
33. Sales—Jump-a-Line Machines
34. Sales—Desks and Chairs
35. Sales—Desk Lamps
36. Sales Returns—Desk Lamps
37. Sales—Envelope Sealers and Stamp Affixers
38. Sales—Office Supplies
39. Purchases—Pep Typewriters
40. Purchases—Speedo Typewriters
41. Purchases—Noiseless Typewriters
42. Purchases—Jump-a-Line Machines

16. Auto Truck
17. Reserve for Depreciation of Auto Truck
18. Advertising Fixtures
19. Reserve for Depreciation of Advertising Fixtures
20. Furniture and Fixtures
21. Reserve for Depreciation of Furniture and Fixtures
22. Accounts Payable
23. Notes Payable
24. Accrued Interest Payable
25. Accrued Salaries Payable
26. Accrued Taxes Payable
27. Mortgage Payable
28. William Wible, Capital
29. William Wible, Personal
43. Purchases—Desks and Chairs
44. Purchases—Desk Lamps
45. Purchases—Envelope Sealers and Stamp Affixers
46. Purchases—Office Supplies
47. Transportation In
48. Cost of Goods Sold—Pep Typewriters
49. Cost of Goods Sold—Speedo Typewriters
50. Cost of Goods Sold—Noiseless Typewriters
51. Cost of Goods Sold—Jump-a-Line Machines
52. Cost of Goods Sold—Desks and Chairs
53. Cost of Goods Sold—Desk Lamps
54. Cost of Goods Sold—Envelope Sealers and Stamp Affixers
55. Cost of Goods Sold—Office Supplies
56. Salaries—Store
57. Advertising
58. Depreciation of Auto Truck
59. Depreciation of Advertising Fixtures
60. Delivery Truck Expenses
61. Insurance on Merchandise Inventory
62. Store Expenses
63. Salaries—Office
64. Light and Heat
65. Telephone and Telegraph
66. Postage
67. Stationery and Printing
68. Insurance on Building and Equipment
69. Office Expenses
70. Depreciation of Furniture and Fixtures
71. Depreciation of Building
72. Property Taxes
73. Interest Expense
74. Mortgage Interest Expense
75. Sales Discounts
76. Purchases Discounts
77. Interest Income
78. Profit and Loss

The following instructions should be heeded in solving this problem:

1. The solution must be done *neatly* in ink.
2. Rulings must be made with ink (preferably red) and with a ruler.
3. Make as adequate an explanation as possible for each entry. Except in the general journal, limit each explanation to the line on which the entry is made.
4. Do not use ink eradicator and do not scratch out, erase, or otherwise obliterate any entries. If necessary, make correcting entries.
5. All payments by check are to be entered in the cash disbursements journal and all payments in actual money in the petty cash book. All payments are to be considered as made by check unless it is stated specifically that they are made from petty cash. Bills are not to be paid unless it is so stated.
6. All cash received is assumed to be deposited as soon as possible after its receipt.
7. All sales of merchandise are to be entered in the sales journal. Cash sales are to be recorded also in the cash receipts journal according to plan 3 of Chapter XIX. The total of the sales invoice is to be placed in either the Accounts Receivable or Cash Sales column; it should not be split between them.
8. All purchases of merchandise are to be entered in the purchase journal. Cash purchases of merchandise are to be recorded also in the cash disbursements journal by the same general plan suggested for cash sales. The total of the purchase invoice is to be placed in either the Accounts Payable or Cash Purchases column; it should not be split between them.
9. Unpaid bills for supplies and services and purchases of fixed assets on open account are to be recorded in the purchase journal.
10. As much current posting as possible should be done as the solution progresses.
11. Check the work as you go along.
    a. Be sure that amounts are inserted in the proper columns.
    b. Before posting column totals be sure that the sum of the debit columns equals the sum of the credit columns in each journal.
12. If more than one page of any journal is used, total each page and carry forward such totals to the top of the next page.

January 1, 19B

As William Wible's books were closed as of December 31, 19A, it is necessary to transfer only the balances of the real accounts to the new books. Open the records by journalizing the items shown in the following statement and supporting schedules:

WILLIAM WIBLE

Balance Sheet, December 31, 19A

Assets

Current Assets:			
Cash			$ 1,793.40
Accounts Receivable (Schedule A)			3,180.75
Notes Receivable (Schedule B)			300.00
Accrued Interest Receivable			0.40
Merchandise Inventory (Schedule C)			7,593.17
Total Current Assets			$12,867.72
Deferred Charges:			
Prepaid Insurance		$ 116.50	
Inventory of Postage		7.00	
Total Deferred Charges			123.50
Fixed Assets:			
Land		$3,097.50	
Building	$7,195.00		
Less: Reserve for Depreciation of Building	23.98	7,171.02	
Auto Truck	$1,260.00		
Less: Reserve for Depreciation of Auto Truck	26.25	1,233.75	
Advertising Fixtures	$ 460.00		
Less: Reserve for Depreciation of Advertising Fixtures	7.67	452.33	
Furniture and Fixtures	$ 950.00		
Less: Reserve for Depreciation of Furniture and Fixtures	7.92	942.08	
Total Fixed Assets			12,896.68
Total Assets			$25,887.90

Liabilities

Current Liabilities:		
Accounts Payable (Schedule D)	$2,152.74	
Notes Payable (Schedule E)	1,972.40	
Accrued Interest Payable (Schedule F)	91.47	
Accrued Salaries Payable (Schedule G)	94.00	
Accrued Taxes Payable	38.00	
Total Current Liabilities	$4,348.61	
Fixed Liabilities:		
Mortgage Payable	6,000.00	
Total Liabilities		10,348.61

Proprietorship

William Wible, Capital	$15,539.29

Schedule A—Accounts Receivable

19A			
December 1.	Albert Lightner	On account	$ 100.00
1.	Rulon Scott	On account	250.00
5.	Progressive Commercial School	On account	200.00
22.	Fox and Son	n/30	128.35
26.	Penn-Lynn Company	2/10, n/30	1,725.90
27.	R. B. Henry	2/5, n/30	776.50
	Total		$3,180.75

Schedule B—Notes Receivable

19A			
December 23.	Albert Lightner	30-day, 6%	$300.00

Schedule C—Merchandise Inventory

Inventory—Pep Typewriters	$1,336.50
Inventory—Speedo Typewriters	2,004.50
Inventory—Noiseless Typewriters	896.00
Inventory—Jump-a-Line Machines	612.00
Inventory—Desks and Chairs	1,488.00
Inventory—Desk Lamps	75.00
Inventory—Envelope Sealers and Stamp Affixers	457.50
Inventory—Office Supplies	723.67
Total	$7,593.17

Schedule D—Accounts Payable

19A			
December 1.	Colbert Typewriter Company	On account	$ 700.00
1.	Browell Brothers	On account	230.00
16.	DeLuxe Stencil Company	n/30	480.00
18.	Dunlap Supply House	On account	250.24
19.	H. O. Woods	On account	25.00
24.	Hooker Supply Company	On account	2.50
30.	Tyler Typewriter Company	2/10, n/30	465.00
	Total		$2,152.74

Schedule E—Notes Payable

19A			
December 19.	Hooker Supply Company	30-day noninterest-bearing	$ 872.40
23.	S. E. Jackson	60-day, 6% interest-bearing	1,100.00
	Total		$1,972.40

Schedule F—Accrued Interest Payable

Accrued interest on mortgage payable for three months	$ 90.00
Accrued interest on S. E. Jackson note for eight days	1.47
Total	$ 91.47

Schedule G—Accrued Salaries Payable

Salaries—Store	$ 43.75
Salaries—Office	43.25
Delivery Truck Expenses	7.00
Total	$ 94.00

The opening entry in the columnar records should include

a. Cash in both the general journal and the cash receipts journal. It should be crosschecked.

b. A separate debit for each account receivable.

c. A separate credit for each account payable.

d. Only one debit for the total of the merchandise inventory.

Before proceeding, check this entry to see that all items have been placed correctly in the proper columns and that the total of the debit items is in agreement with the total of the credit items.

Make reversing entries for accrued interest receivable, inventory of postage, accrued interest payable, accrued salaries payable, and accrued taxes payable.

January 2

Received an invoice for the following materials from Hooker Supply Company, terms on account:

Supplies for use in the salesroom	$21.00
Our new columnar records and miscellaneous stationery	18.40

Received a check from R. B. Henry for his purchase of December 27, less the discount.

January 3

Received a check from Albert Lightner in full of account.

Sent a check to H. O. Woods in full of account.

Sold A. F. Hanna Company three Quality office desks and three Quality office chairs for $600.00. Terms, on account.

Cash sales for January 2 and January 3 were as follows:

Sales—Pep Typewriters	$390.00
Sales—Desk Lamps	60 00
Sales—Envelope Sealers and Stamp Affixers	200.00
Sales—Office Supplies	325.00

Drew a check for $188.00 and paid the salaries for the week ended today. The figures stated below include the accrued salaries payable as of December 31:

1 bookkeeper	$28.00
2 office clerks, each	18.00
1 office messenger	10.00
2 salesmen, each	25.00
1 auto truck driver	14.00
William Wible, Proprietor	50.00

(Charge $\frac{3}{4}$ to Salaries—Store and $\frac{1}{4}$ to Salaries—Office.)

January 5

Sold to the Burt Manufacturing Company, terms 2/5, n/30:

7 oak typewriter desks	$65.00 each
7 oak typewriter chairs	14.00 each
7 portable desk lamps	3.00 each

Received a 30-day 6 per cent note dated today from Penn-Lynn Company for $1,000.00. We allowed them the full 2 per cent discount on the entire amount of their open account balance because the note was interest-bearing. Their check for the balance due was enclosed with the note.

Purchased 100 desk lamps at $2.00 each from the Hall Lamp Company, terms 30 days net.

January 6

Draw a check payable to the order of Petty Cash to establish a petty cash fund of $100.00.

Paid $5.00 from petty cash for stamps.

Sold W. O. Press, terms on account:

500 black typewriter ribbons	$ 0.28 each
20 Jump-a-Line machines	15.00 each
18 dozen stenographer's notebooks	1.50 a dozen

Gave a $60.00 check for coal to heat the building.

January 7

The Burt Manufacturing Company returned one of the desk lamps sold them on January 5 because it was unsatisfactory. A credit memorandum was mailed them to cover this return.

Purchased from Tyler Typewriter Company, terms 2/10, n/30:

10 Pep typewriters	$50.00 each
5 Speedo typewriters	52.00 each
5 noiseless typewriters	90.00 each

Purchased an office safe for our own use from George C. Root, terms on account. Cost price $250.00.

Purchased from the Watkins Furniture Company, terms cash $450.00 and a 60-day 6 per cent note for the balance:

Quality office desks	$3,000.00
Quality office chairs	450.00

January 8

Sent a check for $50.00 to the Mutual Printing Company to cover advertising for one month beginning January 1 in their publication known as the *Office Guide.*

Mailed a check to the Tyler Typewriter Company for the net amount of our purchase of December 30.

January 9

Paid the following from the petty cash drawer:

Office expense items	$1.90
Gasoline and oil	3.25
Stationery for our own use	4.00
	$9.15

Mailed checks to the following:

Hooker Supply Company in full of account.
Browell Brothers in full of account.
Dunlap Supply House in full of account.

Received a check from Burt Manufacturing Company for the balance due.

January 10

Paid salaries for the current week the same as paid on January 3.

Cash sales for the period of January 5 to January 10 inclusive were as follows:

Sales—Speedo Typewriters	$520.00
Sales—Jump-a-Line Machines	150.00
Sales—Desk Lamps	60.00
Sales—Office Supplies	125.00

January 12

Received checks from the following:

Progressive Commercial School in full of account.
Fox and Son in full of account.
Rulon Scott in full of account.

Purchased from Browell Brothers, terms 3/5, n/30:

10 Jump-a-Line machines	$12.00 each
5 envelope sealers	25.00 each
5 dozen bottles Clear-up-Type	4.00 a dozen

January 13

Sold DeLuxe Stencil Company, terms 2/5, n/30:

2 Pep typewriters	$78.00 each
4 Speedo typewriters	82.00 each
3 envelope sealers	45.00 each

Sold Penn-Lynn Company, terms 2/10, n/30:

9 Quality office desks	$150.00 each
9 Quality office chairs	25.00 each
2 noiseless typewriters	160.00 each

January 14

Purchased from the Albright Furniture Company, terms 3/5, n/30:

5 oak typewriter desks	$40.00 each
5 oak typewriter chairs	8.00 each
5 fancy desk lamps	2.00 each

Gave a check for $8.75 to the Pennsylvania Railroad Company covering the merchandise received today from the Albright Furniture Company. Of this $5.00 applied to the desks, $3.00 to the chairs, and the balance to the lamps.

January 15

Paid from petty cash:

Office expense items	$ 1.28
Gasoline and oil	8.40
Printing tags for our own use	6.45
Stamps	1.30
	$17.43

Received a check from A. F. Hanna Company for $280.00 to apply on account.

January 16

On December 16 we purchased $480.00 of merchandise from DeLuxe Stencil Company, terms net 30 days. On January 13 we sold them merchandise, terms 2/5, n/30. Today we received a letter from them setting forth all the facts and enclosing a check for the net amount due. We accepted their check to close out both transactions.

Sent a check to Tyler Typewriter Company for the net amount of our purchase of January 7.

January 17

Paid salaries for the current week the same as paid on January 10.

Cash sales for the period of January 12 to 17 inclusive were as follows:

Sales—Pep Typewriters	$350.00
Sales—Desks and Chairs	285.50
Sales—Envelope Sealers	125.00
Sales—Office Supplies	220.00

Sent a check to the Hooker Supply Company to cover our note due tomorrow.

January 19

Sold R. B. Henry, terms 2/5, n/30:

5 Pep typewriters	$78.00 each
5 Speedo typewriters	82.00 each

Sent a check to Albright Furniture Company for the net amount of our purchase of January 14.

Sold the Burt Manufacturing Company, terms cash $1,060.00 and a 60-day 6 per cent note dated today for the balance:

6 noiseless typewriters	$160.00 each
12 Quality office desks	150 00 each
12 Quality office chairs	25.00 each

January 20

Paid $7.50 from petty cash for the printing of business cards for the proprietor.

Mailed a check to the Hiland Building and Loan Association for Mr. Wible's personal monthly dues of $30.30.

Sold the Tuesday-Luncheon Club an envelope sealer for $45.00, terms on account.

January 21

The check received from the Burt Manufacturing Company and deposited on January 19 was returned to our bank with a memorandum that there were not sufficient funds to cover. Sent our bank a check for $1,062.50 to cover the check and $2.50 protest fees.

Sold the Community Fund, terms net 60 days:

13 Jump-a-Line machines	$ 15.00 each
4 desk lamps	3.00 each
1 Quality office desk and chair	175.00
1 noiseless typewriter	160.00
5 dozen stenographer's notebooks	1.50 a dozen

January 22

Paid from petty cash:

Stamps	$ 5.80
Gasoline and oil	5.20
Office supplies for our own use	2 50
	$13.50

The proprietor withdrew $35.00 for his own use. A business check was drawn to his order. He immediately indorsed it and asks the bookkeeper to cash it out of petty cash.

January 23

Received a check from Albert Lightner to cover his interest-bearing note dated December 23 and due yesterday. The letter bore the postmark of January 21.

Received a check from Penn-Lynn Company for the net amount of their purchase of January 13.

January 24

Paid salaries for the current week the same as paid on January 17.

Cash sales for the period of January 19 to January 24, inclusive:

Sales—Pep Typewriters	$195.00
Sales—Desk Lamps	90.00
Sales—Envelope Sealers	150.00
Sales—Office Supplies	145.00

January 26

Gave a check to Dermatype Stencil-Paper Company for 100 quires of Dermatype stencils at $2.50 a quire purchased today.

Received an apologetic letter from the Burt Manufacturing Company explaining that the check for $1,060.00 had inadvertently been drawn on the wrong bank. They enclosed a check for $1,062.50 to reimburse us for the bad check and $2.50 protest fees.

January 27

The delivery truck skidded and was damaged. Paid $15.40 from the petty cash drawer to cover the necessary repairs.

Sent a check to the Equitable Electric Company for $14.50 for electricity used. Of this bill $6.50 was for the electric advertising sign.

January 28

Paid $6.00 from petty cash to have the store cleaned.

Discounted the note received from Burt Manufacturing Company on January 19. Rate of discount 6 per cent.

Purchased 7 per cent preferred stock of the Inter-Urban Railway Company for cash at a cost of $3,100.00.

January 29

Sent a check for $15.00 to *The Bulletin* to cover advertising.

R. T. Edwards, a friend of William Wible, gave $20.00 in cash and asked for a check payable to T. H. Cook Company for $20.00. Mr. Wible instructed the bookkeeper to accommodate R. T. Edwards. (All checks drawn are to be entered in the cash disbursement journal.)

January 30

Paid from petty cash:

Towel service (⅔ store and ⅓ office)	$ 3 50
Gasoline and oil	6.20
Stamps	3.80
	$13.50

Purchased an adding machine from the Grubbs Machine Company for use in the office. Amount $115.00 and terms 30 days net.

January 31

Paid salaries for the current week. The truck driver asked for an advance of $10.00 on his next week's salary to which Wible agreed. All other employees were paid the same as on January 24.

Cash sales for the period of January 26 to January 31, inclusive:

Sales—Speedo Typewriters	$416.00
Sales—Jump-a-Line Machines	135 00
Sales—Desk Lamps	30.00
Sales—Office Supplies	95.00

Received a bill from The Bell Telephone Company for $12.80 for the month ended January 25.

Additional requirements:

a. Reimburse petty cash by means of the original entry system. Restore the balance of the drawer to $100.00 by drawing and cashing a check.

b. Rule, total, and post the journals.

c. Prepare a trial balance of the general ledger as of January 31, supported by schedules of the accounts receivable and accounts payable ledgers.

d. From the trial balance and the following supplementary data as of January 31, prepare a ten-column work sheet.

Inventory of merchandise:

Pep typewriters	$ 900.00
Speedo typewriters	1,160 00
Noiseless typewriters	510.00
Jump-a-Line machines	240.00
Desks and chairs	1,750.00
Desk lamps	102.00
Envelope sealers and stamp affixers	217.00
Office supplies	270.00

An analysis of the Transportation-in account shows that $5.00 applied to purchases of desks, $3.00 to chairs, and $.75 to lamps. Ignore provision for bad debts.

Accrued interest receivable	$ 4 33
Prepaid salaries	10.00
Inventory of coal	8.00

Insurance expense for January:

On auto truck	4.00
On merchandise	2.50
On building and equipment	4.00

Depreciation of fixed assets for January is to be provided at the following rates:

Automobile truck	25 per cent a year
Advertising fixtures	20 per cent a year
Building	4 per cent a year
Furniture and fixtures	10 per cent a year

(Ignore depreciation on the adding machine purchased January 30.)

Accrued interest payable:

On mortgage payable (four months on \$6,000.00 at 6%)	\$120.00
On notes payable:	
S. E. Jackson note from December 23 to January 31	7.15
Watkins Furniture Company note from January 7 to January 31	12.00

Accrued property taxes for December and January. 76.00

Transfer depreciation of auto truck to the Delivery Truck Expenses account.

e. Prepare a balance sheet as of January 31, 19B, and a statement of profit and loss for the month of January. In the profit and loss statement present only the total figures for net sales, cost of goods sold, and gross profit on sales. Show the sales, cost of goods sold, and gross profit on sales figures for each class of merchandise in a supporting schedule to the profit and loss statement.

f. Prepare the adjusting and closing journal entries and post them to the ledger.

g. Rule and balance the accounts where necessary.

h. Prepare a postclosing trial balance.

PRACTICE SET 2-*B*

Ray D. Oles Problem in Columnar Books

This problem is a continuation of Practice Set 1-*B*.

Ray D. Oles was pleased with the results of his first month in the electrical equipment and appliance business. He foresees the need of information that will enable him to determine the gross profit on each line of merchandise handled. He anticipates a growth in the volume of credit business and wishes proper controls over accounts receivable and payable. Your are instructed to set up records to comply with his wishes.

The necessary blank books and papers for this problem may be obtained from the publishers of this text—Practice Set 2-*A* or 2-*B*.

The rulings of each columnar journal appear below. As each journal is a separate book, the page numbers of each begin with 1. Where necessary write in column headings as indicated in the following forms. Do not use columns other than those for which headings appear below.

GENERAL JOURNAL

Debit						Credit		
Accounts Receivable	Accounts Payable	General Ledger	F	Date Accounts and Explanation	F	General Ledger	Accounts Receivable	Accounts Payable

PETTY CASH JOURNAL

Receipts				Credit	Debit			
Date	Amount	Date	Explanation	Petty Cash	Office Expenses	Store Expenses	Postage	Delivery Truck Expenses

PETTY CASH JOURNAL (*Continued*)

Sundry Debits		
Amount	F	Account

CASH RECEIPTS JOURNAL

Date	Accounts and Explanation	F	Credit			Debit	
			General Ledger	Accounts Receivable	Cash Sales	Sales Discounts	Cash

CASH DISBURSEMENTS JOURNAL

Date	Accounts and Explanation	F	Debit			Credit	
			General Ledger	Accounts Payable	Cash Purchases	Purchase Discounts	Cash

PURCHASE JOURNAL

Date	Accounts	Terms	F	Credit		Debit	
				Accounts Payable	Cash Purchases	Purchases Electrical Appliances	Purchases Electrical Refrigerators

PURCHASE JOURNAL *(Continued)*

Debit						
Purchases Radios	Purchases Tubes and Radio Parts	Store Expenses	Office Expenses	Sundries		
				Amount	F	Account

SALES JOURNAL

Date	Accounts	Terms	F	Debit		Credit			
				Accounts Receivable	Cash Sales	Sales Electrical Appliances	Sales Electrical Refrigerators	Sales Radios	Sales Tubes and Radio Parts

The ledger booklet is divided into three parts—general ledger, accounts receivable subsidiary ledger, and accounts payable subsidiary ledger. The first page of each ledger should be used for index purposes. The index should be set up in the general ledger before posting any items. In each subsidiary ledger the index should be developed as each new account is opened. For posting purposes each account is assumed to be separate page.

The general ledger accounts to be used in solving this problem should be set up in the following order:

Real Accounts

1. Cash
2. Petty Cash
3. Accounts Receivable
4. Notes Receivable
5. Accrued Interest Receivable
6. Inventory of Merchandise
7. Prepaid Insurance
8. Prepaid Interest
9. Prepaid Advertising
10. Inventory of Postage
11. Land
12. Building
13. Reserve for Depreciation of Building
14. Auto Truck
15. Reserve for Depreciation of Auto Truck
16. Tools and Sales Equipment
17. Reserve for Depreciation of Tools and Sales Equipment
18. Office Furniture and Fixtures
19. Reserve for Depreciation of Office Furniture and Fixtures

Nominal Accounts

29. Sales—Electrical Appliances
30. Sales—Electrical Refrigerators
31. Sales—Radios
32. Sales—Tubes and Radio Parts
33. Sales Returns—Electrical Refrigerators
34. Purchases—Electrical Appliances
35. Purchases—Electrical Refrigerators
36. Purchases—Radios
37. Purchases—Tubes and Radio Parts
38. Transportation In—Electrical Refrigerators
39. Purchase Returns—Electrical Appliances
40. Purchase Returns—Radios
41. Cost of Goods Sold—Electrical Appliances
42. Cost of Goods Sold—Electrical Refrigerators
43. Cost of Goods Sold—Radios

20. Advertising Fixtures
21. Accounts Payable
22. Notes Payable
23. Accrued Interest Payable
24. Accrued Salaries Payable
25. Accrued Taxes Payable
26. Mortgage Payable
27. Ray D. Oles, Capital
28. Ray D. Oles, Personal
44. Cost of Goods Sold—Tubes and Radio Parts
45. Advertising
46. Insurance on Auto Truck
47. Delivery Truck Expenses
48. Transportation Out
49. Insurance on Inventory
50. Depreciation of Tools and Sales Equipment
51. Service Expenses
52. Store Expenses
53. Depreciation of Auto Truck
54. Salaries—Delivery
55. Salaries—Sales
56. Salaries—Servicing (not used until January 24)
57. Salaries—Office
58. Postage
59. Heat and Light
60. Telephone and Telegraph
61. Property Taxes
62 Depreciation of Building
63. Depreciation of Office Furniture and Fixtures
64. Insurance on Building and Equipment
65. Office Expenses
66. Interest Expense
67. Sales Discounts
68. Mortgage Interest Expense
69. Interest Income
70. Purchase Discounts
71. Profit and Loss

The following instructions should be heeded in solving the problem:

1. The solution must be done *neatly* in ink.
2. Rulings must be made with ink (preferably red) and with a ruler.
3. Make as adequate an explanation as possible for each entry. Except in the general journal, limit each explanation to the line on which the entry is made.
4. Do not use ink eradicator and do not scratch out, erase, or otherwise obliterate any entries. If necessary, make correcting entries.
5. All payments by checks are to be entered in the cash disbursements journal and all payments in actual money in the petty cash book. All payments are to be considered as made by check unless it is stated specifically that they are made from petty cash. Bills are not to be paid unless it is so stated.

6. All cash received is assumed to be deposited as soon as possible after its receipt.
7. All sales of merchandise are to be entered in the sales journal. Cash sales are to be recorded also in the cash receipts journal according to plan 3 of Chapter XIX. The total of the sales invoice is to be placed in either the Accounts Receivable or Cash Sales column; it should not be split between them.
8. All purchases of merchandise are to be entered in the purchase journal. Cash purchases of merchandise are to be recorded also in the cash disbursements journal by the same general plan suggested for cash sales. The total of the purchase invoice is to be placed in either the Accounts Payable or Cash Purchases column; it should not be split between them.
9. Unpaid bills for supplies or services and purchases of fixed assets on open account are to be recorded in the purchase journal.
10. As much current posting as possible should be done as the solution progresses.
11. Check the work as you go along.
    a. Be sure that amounts are inserted in the proper columns.
    b. Before posting column totals be sure that the sum of the debit columns equals the sum of the credit columns in each journal.
12. If more than one page of any journal is used total each page and carry forward such totals to the top of the next page.

January 1, 19B

As R. D. Oles's books were closed as of December 31, 19A, it is necessary to transfer only the balances of the real accounts to the new books. Open the records by journalizing the items shown in the following statement and supporting schedules:

RAY D. OLES

BALANCE SHEET, DECEMBER 31, 19A

Assets

Current Assets:		
Cash		$ 3,535.46
Accounts Receivable (Schedule A)		1,311.12
Notes Receivable (Schedule B)		400.00
Accrued Interest Receivable (Schedule B)		1.40
Inventory of Merchandise (Schedule C)		3,180.00
Total Current Assets		$ 8,427.98
Deferred Charges:		
Prepaid Insurance	$ 167.48	
Inventory of Postage	6.00	
Total Deferred Charges		173.48

Fixed Assets:			
Land		$ 5,000.00	
Building	$13,000.00		
Less: Reserve for Depreciation of Building	43.33	12,956.67	
Auto Truck	$ 800.00		
Less: Reserve for Depreciation of Auto Truck	22.22	777.78	
Tools and Sales Equipment	$ 2,288.00		
Less: Reserve for Depreciation of Tools and Sales Equipment	25.00	2,263.00	
Office Furniture and Fixtures	$ 700.00		
Less: Reserve for Depreciation of Office Furniture and Fixtures	5.83	694.17	
Total Fixed Assets			21,691.62
Total Assets			$30,293.08

Liabilities

Current Liabilities:		
Accounts Payable (Schedule D)	$ 1,174.60	
Accrued Interest Payable (Schedule E)	360.00	
Accrued Salaries Payable (Schedule F)	81.50	
Accrued Taxes Payable	42 00	
Total Current Liabilities	$ 1,658.10	
Fixed Liabilities:		
Mortgage Payable	12,000.00	
Total Liabilities		13,658.10

Proprietorship

Ray D. Oles, Capital	$16,634.98

Schedule A—Accounts Receivable

19A					
December	1.	R. E. Frank and Company	On account	$178.00	
	20.	R. E. Frank and Company	30 days net	185.00	$ 363.00
	19.	Henry Holmes, Inc.	On account		273.12
	27.	R. S. Young, Agent	30 days net		675.00
		Total of accounts receivable in the balance sheet			$1,311.12
	30.	A. N. Black—Deposit included in accounts payable in the balance sheet			20.00
	31.	Accounts Receivable in the ledger			$1,291.12

Schedule B—Notes Receivable and Accrued Interest Receivable

				Face	Accrued Interest to December 31
19A					
December	4.	Burt and Hope	60-day, 6%	$200.00	$0.90
	9.	A. G. Grant	60-day, 6%	100.00	0.37
	23.	Burt and Hope	30-day, 6%	100.00	0.13
				$400.00	$1.40

Schedule C—Merchandise Inventory

Inventory—Electrical Appliances	$1,311.00
Inventory—Electrical Refrigerators	1,104.00
Inventory—Radios	765.00
Inventory—Tubes and Radio Parts	0
Total	$3,180.00

Schedule D—Accounts Payable

19A				
December	2.	Warner and Warner	30 days net	$ 500.00
	8.	Billboard Advertising Company	On account	100.00
	19.	Eastern Electrical Company	On account	227.60
	30.	Watt and Watt	1/10, n/30	327.00
	31.	Accounts Payable in the ledger		$1,154.60
	30.	A. N. Black (See Schedule A)		20.00
	31.	Total of accounts payable in the balance sheet		$1,174.60

Schedule E—Accrued Interest Payable

Accrued interest on the mortgage for six months	$360.00

Schedule F—Accrued Salaries Payable

Salaries—Delivery	$10.00
Salaries—Sales	47.50
Salaries—Office	24.00
Total	$81.50

The opening entry in the columnar books should include

a. A separate debit for each account receivable.

b. A separate credit for each account payable.

c. Only one debit for the total of the inventory of merchandise.

In the opening entry record cash in the general journal and the cash receipts journal and cross-check.

Before proceeding, check this entry to see that all items have been placed correctly in the proper columns and that the total of the debit items is in agreement with the total of the credit items.

Make the reversing entries for the accrued interest receivable, the inventory of postage, the accrued interest payable, the accrued salaries payable, and the accrued taxes payable.

January 2

Received an invoice for the following materials from Hays Brothers, terms on account:

Supplies for use in the salesroom	$36.50
Our new columnar records and miscellaneous office supplies	63.50

Sent a check for $15.00 to pay the license tax on dealers. (Debit Store Expenses.)

Sent a check for $360.00 covering the six months' interest due on the mortgage.

January 3

Mr. Oles has been made the local distributor for Stonecold Electric Refrigerators and Golden Tone Radios.

Purchased from the Stonecold Refrigerator Company, terms 2/10, n/30:

Retail sales price	$1,800.00
Less trade discount 20 per cent	360.00
Contract price	$1,440.00

Paid $28.50 freight on this shipment. The check was made payable to the Pennsylvania Railroad Company.

Drew a check for $163.00 and paid the salaries for the week ended today. The figures stated below include the accrued salaries payable as of December 31:

Salaries—Delivery	$20.00
Salaries—Sales	95.00
Salaries—Office	48.00

January 5

Cash sales for January 2 and January 3 were as follows:

Sales—Electrical Appliances	$324.00
Sales—Electrical Refrigerators	258.00
Sales—Radios	175.00

Purchased from the Golden Tone Radio Company:

Retail sales price of radios		$3,500.00
Less trade discount 40 per cent		1,400.00
Contract price		$2,100.00
Retail sales price of tubes and radio parts	$320.00	
Less trade discount 25 per cent	80.00	
Contract price		240.00
Total contract price		$2,340.00

The Golden Tone Radio Company agreed to allow us a 1 per cent cash discount if paid within 10 days. All shipments were made f.o.b. destination.

On December 30 A. N. Black made a deposit of $20.00 on a large refrigerator. Today he completed his purchase by ordering it delivered. Sales price $325.00. Terms, cash additional $85.00 and the balance in 30 days.

January 6

Drew a $100.00 check payable to the order of Petty Cash to establish a petty cash fund.

Purchased $15.00 of postage from petty cash.

One of the radios received yesterday from the Golden Tone Radio Company was damaged and it was returned to the company. (See January 10.)

Mr. Oles took W. W. Ward, a prospective customer, to dinner. Mr. Ward, the owner of a new apartment house, signed an order for ten Stonecold Refrigerators at $140.00 each. Terms, $500.00 cash and a 90-day 6 per cent note for the balance.

January 7

Reimbursed Mr. Oles for $5.00 from the petty cash fund to cover expenses of the dinner to which he invited W. W. Ward.

The refrigerators were delivered to the apartments of W. W. Ward this morning.

Gave the Jiffy Printing Company a check for $25.00 to cover the cost of printing some advertising pamphlets.

Drew a business check for $850.00 payable to the Upstate Realty Company to cover hunting land and cabin purchased by Mr. Oles for his personal use.

January 8

Sent a check to Watt and Watt for the net amount due on our purchase of December 30.

Bought a $380.00 cash register from the Office Equipment Company that would enable us to better control the sales of our various lines of merchandise. Terms 30 days net. (Debit Tools and Sales Equipment.)

Purchased electrical appliances from the Universal Electric Company for $498.00 and gave our check in payment.

January 9

Billed A. G. Grant for $150.00 of electrical appliances sold today, terms 30 days net.

Returned electrical appliances purchased yesterday from the Universal Electric Company and received a credit memorandum for $22.60.

Reimbursed the truck driver for $3.00 for gasoline he purchased for

the truck out of his personal funds. The money was taken from petty cash.

January 10

Received a call from Grant and Company that the electrical appliances sold them yesterday appeared on the billing as a charge to A. G. Grant. Make the necessary correcting entry.

Received and recorded a credit memorandum from the Golden Tone Radio Company for $90.00 to cover the damaged radio we returned on January 6.

Sold the Radio Service Company $125.00 of radio tubes and parts, terms 1/10, n/30. For their convenience we prepaid the $5.00 transportation charges although the agreement was f.o.b. our store. The money was paid from petty cash.

Drew a check for the weekly salaries the same as last Saturday.

January 12

Cash sales for the period January 5 to January 10, inclusive, were as follows:

Sales—Electrical Appliances	$356.00
Sales—Electrical Refrigerators	334.00
Sales—Radios	404.95
Sales—Tubes and Parts	95.00

Wrote Golden Tone Radio Company of the error made in the credit memorandum received on January 10. The credit should have been $54.00; the 40 per cent trade discount had been ignored. Make the necessary correcting entry.

Paid $12.00 from petty cash for office supply items.

January 13

Sent a check to the Stonecold Refrigerator Company for the net amount due on our purchase of January 3.

Sent checks to:

Billboard Advertising Company in full of account.
Eastern Electrical Company in full of account.

January 14

Purchased $352.00 of electrical appliances from Watt and Watt, terms 1/10, n/30.

Received a check from R. E. Frank and Company in full of account.

A check received from F. D. Orr on January 9 for $29.95 for a cash sale was returned marked N.S.F.

Sold Radio Supply House some tubes and parts needed to fill a large order they received. We allowed them a trade discount of 15 per cent on a retail sales price of $50.00 and offered an additional 1 per cent cash discount if paid within 10 days.

January 15

Sent Golden Tone Radio Company a check for the net amount due.

Received checks from:

Henry Holmes, Inc., for the balance of their account.
R. S. Young, Agent, in full of account.

Mailed a number of advertising pamphlets to a select list of people. Used $4.00 of stamps. Record.

Purchased $10.00 of postage from petty cash.

Purchased tubes and parts from Golden Tone Radio Company with a retail sales price of $385.00 and subject to the same terms as our purchase of January 5.

January 16

Paid $6.40 from petty cash for office supplies.

Received a letter from Golden Tone Radio Company thanking us for our letter concerning the excessive credit memorandum they sent us. A debit memorandum for $36.00 was enclosed. (See January 10 and January 12.)

Received a letter from Warner and Warner informing us that they had not received our check for the balance due on our purchase of December 2. A check was sent immediately with a letter of apology for the oversight.

January 17

An employee sent a personal telegram over the business telephone. He gave the bookkeeper $.85 to cover.

Burt and Hope purchased the following bill of goods, terms cash $132.00 and a 60-day 6 per cent note for the balance:

Radios	$249.50
Tubes and parts	82.50

Paid $8.50 out of petty cash for express charges on the goods sold Burt and Hope f.o.b. destination.

Drew a check for the weekly salaries the same as January 10.

January 19

Cash sales for the period January 12 to January 17, inclusive, were as follows:

Sales—Electrical Appliances	$396.00
Sales—Electrical Refrigerators	352.00
Sales—Radios	410.00
Sales—Tubes and Parts	103.00

Business had increased sufficiently for Mr. Oles to hire the sales clerk who helped during the Christmas season. He was placed on the permanent staff at $25.00 a week and started work this morning.

January 20

Mr. Oles gave a radio to a high-school group interested in music appreciation. The radio retailed at $120.00 but had been purchased at a trade discount of 40 per cent. The gift was actually made to advertise Golden Tone Radios.

Sent a check for $32.80 to the Peoples Gas Company for gas consumed.

January 21

Mr. Oles duplicated his order of January 3 from the Stonecold Refrigerator Company. The order was filled today. The terms were likewise the same except that they agreed to f.o.b. destination.

Cashed a check for $10.00 for T. R. Robins, a friend of the proprietor. The cash was taken from the cash register and the check substituted.

A check for $100.00 was given the *Community Herald*, a local monthly publication, to cover a large advertisement in their February number Mr. Oles planned to reduce prices at a time when other stores were having their furniture sales.

January 22

Received a check from Burt and Hope covering their interest-bearing note dated December 23.

Mr. Oles hired an electrician to care for servicing and repairing the merchandise. He began work this morning at a salary of $36.00 a week.

The chains on the auto truck were so badly torn that the driver had to buy others. He was reimbursed for $6.75 out of petty cash.

Purchased electrical appliances from the Modern Electric Company for $620.00 cash.

January 23

Sold Blake's Radio Mart, terms 2/10, n/30:

Radios	$350 00
Tubes and parts	85.00
Electrical appliances	125.00

Paid $6.00 from petty cash for drinking water and paper cups for the office.

Sent a check for $75.00 to K. L. Handy, a carpenter, to cover the cost of labor and materials used to repair the cabin that Mr. Oles purchased on January 7.

January 24

Drew a check for the weekly salaries. In addition to the usual payroll, the new store clerk worked the entire week and the serviceman hired on January 22 received one-half of his weekly wage.

Sent a check to Watt and Watt to cover our purchase of January 14.

Sent a check for $21.50 to the Equitable Electric Company for electricity used.

Received a check from Radio Supply House for the net amount of their purchase of January 14.

January 26

Cash sales for the period January 19 to January 24, inclusive, were as follows:

Sales—Electrical Appliances	$383.00
Sales—Electrical Refrigerators	311.00
Sales—Radios	350.00
Sales—Tubes and Parts	82.00

A demonstration radio was sold for $72.00 (20 per cent off retail selling price) to M. B. Cole, terms 30 days net.

January 27

Golden Tone Radio Company delivered this morning:

Radios with a retail sales price of $800.00.
Tubes and radio parts with a retail sales price of $350.00.

Terms were the same as on the purchase made on January 5.

One of the electric refrigerators sold for cash last week was returned today. The purchaser was allowed full credit of $140.00 to apply on a larger model selling for $195.00. A check was received for the difference. (Record the $195.00 as a cash sale. In the cash receipts journal record the sales return by means of red ink.)

January 28

The proprietor withdrew $100.00 for his own use. A business check was drawn to his order.

Purchased a comptometer from the Office Equipment Company for $115.00 and gave a check in payment.

Received a bill from the Radio Service Engineers, Inc. for servicing radios prior to the time of employing our own electrician. We sent a check for $21.00 to cover.

Sent a check for $23.60 to The Bell Telephone Company for telephone and telegraph.

Paid $.84 from petty cash for parcel post on a small radio sold for cash.

January 29

Mr. Oles negotiated a $3,500.00 loan at the bank. He signed a 30-day note which was discounted at 6 per cent. He pledged personal securities as collateral for the loan.

Mr. Oles learned of a wholesale house that had gone into receivership. After a thorough investigation he bought a considerable portion of their stock at a real bargain price. He acquired:

Radios	$1,450.00
Tubes and parts	695.00

A check was given for $2,145.00.

Mr. Oles decided to construct an electric sign. He purchased for cash:

Metal and wood	$ 60.00
Electric motor, bulbs, and wire	235.00

January 30

Radio parts were taken from stock to replace defective parts in a radio sold last week. The parts went bad during the period of guarantee. These parts cost $11.25 and were marked to sell for $15.00.

Paid $6.40 from petty cash to cover the cost of cleaning. Of this expenditure, $3.84 applied to the store and the balance to the office.

Mr. Oles withdrew a radio for home use. It was marked to sell at $200.00 but was bought at a 40 per cent trade discount.

January 31

Sent a check to the Stonecold Refrigerator Company for the net amount due on our purchase of January 21.

Cash sales for the period of January 26 to January 31, inclusive:

Sales—Electrical Appliances	$350.00
Sales—Electrical Refrigerators	324.00
Sales—Radios	310.00
Sales—Tubes and Parts	98.00

Paid salaries for the current week. Drew a check for $224.00.

Sent a check for $32.40 to the Midtown Garage for oil, gas, and greasing of the auto truck.

Additional requirements:

a. Reimburse petty cash by means of the original entry system. Restore the balance of the drawer to $100.00 by drawing and cashing a check.

b. Rule, total, and post the journals.

c. Prepare a trial balance of the general ledger as of January 31, supported by schedules of the accounts receivable and accounts payable ledgers.

d. From the trial balance and the following supplementary data as of January 31, prepare a ten-column worksheet.

Inventory of merchandise:

Electrical appliances	$1,490.00
Electrical refrigerators	1,325.00
Radios	3,110.00
Tubes and radio parts	940.00
Total	$6,865.00

All the accounts and notes receivable were considered good.

Accrued interest receivable (total amount accrued at January 31, 19B) $7.03.

Insurance for January was as follows:

On auto truck	$4.83	
On inventory of merchandise	4.00	
On building and equipment	6.26	$ 15.09

Prepaid interest	16.33
Prepaid advertising	100.00
Inventory of postage	10.00

Depreciation of fixed assets for January is to be provided at the following rates:

Building	4 per cent a year
Auto truck	33⅓ per cent a year
Tools and sales equipment	$28.50 for January
Office furniture and fixtures	10 per cent a year

Note: No depreciation is to be provided on the comptometer or the electric sign as they were not in use over a half month.

Accrued interest on the mortgage for the month of January	$60.00
Accrued property taxes for December and January	84.00

Transfer to the Delivery Truck Expenses account all costs in connection with the operation of the truck including insurance, delivery salaries, and depreciation.

Transfer the Salaries—Servicing account to the Service Expenses account.

e. Prepare a balance sheet as of January 31, 19B, a statement of profit and loss for the month, and an analysis of proprietorship for the month. In the profit and loss statement present only the total figures for net sales, cost of goods sold, and gross profit on sales. Show the sales, cost of goods sold, and gross profit on sales figures for each class of merchandise in a supporting schedule to the profit and loss statement.

f. Prepare the adjusting and closing journal entries and post them to the ledger.

g. Rule and balance the accounts where necessary.

h. Prepare a postclosing trial balance.

Chapter XX. Other Records

1. Parke Husted, Inc., kept a notes receivable register that was also a book of original entry. Rule such a journal similar to the one on page 302 and record the following transactions in chronological order:

NOTES RECEIVED

Date Received	Date of Note	Maker or Drawee	Received From	Face	Term	Interest Rate	Where Payable
April 1	March 20	M. P. Neff	J. L. Reed	$ 500.00	60 days	6 per cent	2nd National
2	April 1	H. A. Roup	H. A. Roup	3,280 00	45 days	0	1st National
11	March 6	B. B. Ball	W. A. Boyd	1,000 00	90 days	0	2nd National
16	April 7	J. P. Watt	A. S. Green	675.00	30 days	6 per cent	Union Trust
21	April 9	G. O. Ford	A. L. Ford	5,000.00	60 days	6 per cent	City Trust

All notes except the one signed by H. A. Roup were taken at their discounted values, the discount rate being 6 per cent.
The note received from A. L. Ford was discounted at the bank on April 27, the discount rate being 6 per cent.
Neff was unable to pay his note at maturity. He agreed to pay the interest and $250.00 of the principal and gave a new 30-day 6 per cent note dated May 19 for the balance. We requested J. L. Reed to indorse the new note and he complied.
The notes received from Roup, Boyd, and Green were paid when due.

2. Set up a plant ledger card similar to the one on page 310 and enter all data from July 1, 19A̲, to February 1, 19E̲.
A planing mill bearing the manufacturer's catalog number 8-86A was purchased from the manufacturer, the Western Machine Company, on July 1, 19A̲, for $3,600.00. We assigned the number 942 to the machine. The account Plant Equipment was debited at the time of purchase. The machine was installed in Department D-9 at a cost of $86.00. The freight paid was $250.00. The estimated useful life was eight years and the estimated scrap value was $176.00.
On September 30, 19C̲, the bearings were replaced in this machine at a cost of $48.00.
On June 3, 19D̲, a new drive shaft was installed at a cost of $7.60.
On February 1, 19E̲, the planing mill was sold for $1,745.00 cash.

3. Set up an insurance register similar to the one shown on page 299 and enter the following policies for the current year 19C̲:

Policy No.	Name of Company	Risk Covered	Policy Date	Amount	Term	Premium Paid in 19C
453267	Everyman's Mutual	Building	October 1, 19A	$40,000	5 yr.	0
1845902	Standard Casualty	Auto	March 1, 19B	5–10,000	1 yr.	0
2439764	Standard Casualty	Auto	January 1, 19C	5–10,000	1 yr.	$ 58 00
760283	Rio Insurance Co.	Equipment	July 1, 19C	60,000	1 yr.	720.00

The premium on the policy covering the building was $400.00 and the premium on the automobile truck in 19B was $60.00. The latter policy was canceled two months before it expired when a new truck was purchased and a new policy issued. A credit of $8.75 was obtained on cancellation of Policy 1845902 and was applied against the premium of $58.00 on Policy 2439764.

NOTE: The policies listed are not all the policies the company had. To care for cancellations, a convenient plan is to place a circle around the figures that are to be subtracted in determining the column totals.

From the above facts determine the unexpired premiums on January 1 and December 31, 19C, and the insurance cost for the year 19C.

Chapter XXI. Partnerships

1. The partnership of Alberts and Stuart earned a net profit of $9,500.00 for the calendar year 19A before considering the salaries of the partners or interest on their capital investments. The articles of partnership contained the following provisions:
   a. Annual salaries of the partners, Alberts $3,600.00 and Stuart $2,400.00.
   b. Interest at the rate of 6 per cent a year was to be allowed on the net investment of each partner as shown by the unadjusted trial balance at the close of the year.
   c. Residual profits or losses were to be shared 60 per cent by Alberts and 40 per cent by Stuart.

   The capital accounts of the partners revealed the following:

	Alberts	Stuart
Balance, January 1, 19A	$13,500.00	$9,800.00
Withdrawals during 19A	700.00	300 00
Added investments during 19A	2,000.00	1,200.00

   The partners withdrew their salaries throughout the year, charging the Salaries of Partners account.

   Required:

   a. General journal entries to record the distribution of the net profit of $9,500.00 in accordance with the provisions of the articles of partnership. Drawing accounts were not used.

b. A statement to show the equity of each partner in the partnership as shown by the balance sheet prepared as of December 31, 19A.

2. Rework Problem 1, assuming that the statement of profit and loss showed an excess of expenses over income of $2,400.00 before considering salaries of partners or interest on investments.

3. On January 1 of the current year Murdock and Lange formed a partnership, investing $15,000.00 and $10,000.00, respectively. During the next six months the following changes took place in their capital accounts:

	Added Investments		Withdrawals	
Partner	Date	Amount	Date	Amount
Murdock	April 1	$2,500.00	June 1	$500.00
Lange	March 1	1,000.00	May 1	300.00

The statement of profit and loss for the six months showed a net profit of $3,000.00.

How should the net profit of $3,000.00 be divided between Murdock and Lange under each of the following assumptions?

a. Murdock and Lange shared profits and losses according to the net investments at the end of the fiscal period.

b. Murdock and Lange shared profits and losses according to the average capital investments for the period. (Use the number of months unchanged plan.)

c. Murdock and Lange shared profits and losses equally after allowing interest at 6 per cent a year on capital invested according to the length of time employed.

4. Rework Problem 3, assuming that the statement of profit and loss for the six months showed a net loss of $3,000.00 instead of a net profit of $3,000.00.

5. On January 1, 19A, *R*, *C*, and *S* invested $40,000.00, $20,000.00, and $35,000.00, respectively, in a partnership. The articles of partnership provided for:

a. Interest at 6 per cent a year on capital invested according to the length of time employed.

b. Monthly salaries of $500.00 for *R*, $300.00 for *C*, and $400.00 for *S*.

c. The residual profit or loss to be divided 60 per cent to *R* and 20 per cent each to *C* and *S*.

The partners took their salaries on the last day of each month. A Partners' Salaries account was used.

During the year

a. Added investments were made as follows:
  (1) March 1—*R* $5,000.00.
  (2) September 1—*R* $10,000.00.
  (3) April 1—*C* $2,000.00.

b. Withdrawals were made as follows:
  (1) July 1—*C* $7,000.00.
  (2) November 1—*C* $6,000.00.

The net profit for 19A was $18,370.00.

Required:

a. The monthly entry in general journal form to record the payment of salaries.

b. The entry at the end of the year to credit the personal accounts with interest on capitals. Show the supporting computations.

c. The remaining entries necessary to close the books. At the request of the partners, the personal accounts were not closed.

d. Set up the Profit and Loss account for 19A and insert the necessary figures.

e. What was *R*'s amount of the net profit for the year?

f. What was the amount of *R*'s equity in the firm at the end of the year?

6. Toole, Todd, and Tone formed a partnership at the beginning of 19A. The initial capital investments were $30,000.00, $40,000.00, and $10,000.00, respectively.

The articles of partnership provided for the following:

a. Salaries—Toole $9,000.00, Todd $6,000.00, and Tone $1,200.00 a year.

b. Interest at 4 per cent on capitals as of the beginning of the year.

c. Residual profit or loss to be shared Toole 40 per cent, Todd 40 per cent, and Tone 20 per cent.

The salaries were charged monthly to the Partners' Salaries account but the partners did not take the salaries in cash, as such.

After partners' salaries but before interest on partners' capitals, there was a residual loss for 19A of $800.00.

Withdrawals were charged to the drawing accounts during the year as follows: Toole $8,000.00, Todd $6,200.00, and Tone $700.00.

Required:

a. The supplementary section that appeared at the bottom of the statement of profit and loss for 19A to show the distribution of the net profit among the partners.

b. The monthly entry for the salaries of the partners.

c. The entry as of December 31, 19A to record the interest on capitals.

d. The entries to close the books as of December 31, 19A, including the closing of the drawing accounts.
e. What was Tone's amount of the net profit for the year?
f. What was the amount of Todd's equity in the firm at the end of the year?

7. In the partnership of Abbott, Bell, Cane, and Drew, the net profit for each six-month period was divided 35 per cent to Abbott, 30 per cent to Bell, 25 per cent to Cane, and 10 per cent to Drew, after the Profit and Loss account had been charged with Drew's $1,800.00 salary for the period.

Drew's salary was paid monthly and charged to Partner's Salary. Other withdrawals made by the partners were charged to their respective drawing accounts.

On the first day of the six-month period just ended, Cane, with the consent of the other partners, withdrew a firm automobile which had cost $1,350.00 and which had been depreciated a total of $625.00. The partners agreed to charge Cane with the book value of the automobile.

During the period Abbott, Bell, and Cane withdrew $10,000.00, $11,000.00, and $6,000.00 cash, respectively.

The net profit for the period was $34,000.00.

Required:
a. The journal entry to record the withdrawal of the automobile.
b. The entries to close the books, including the closing of the drawing accounts.
c. What per cent of the net profit was received by or was credited to Drew?

Chapter XXII. Partnerships (*Continued*)

1. Bates, Gates, and Kates are partners with capitals of $20,000.00, $16,000.00, and $12,000.00, respectively. They share profits and losses in the ratio of 50 per cent, 30 per cent, and 20 per cent, respectively. They agree to admit Yates to an interest in the firm. In two-column general journal form, give the entries necessary to record the admission of Yates under each of the following conditions:
a. Yates pays in $20,000.00 for a one-fourth interest in a total capital of $80,000.00.
b. Yates pays in $10,000.00 for a one-fifth interest in a total capital of $60,000.00.
c. Yates pays in $12,000.00 for a one-sixth interest in the capital and receives credit for $10,000.00.

d. Yates pays in $14,000.00 for a one-fifth interest in the capital. Two different solutions are required.

2. Barr, Carr, and Tarr were partners in a firm into which Harr was seeking admission. The balance sheet showed the three partners with equities: Barr $15,000.00, Carr $10,000.00, and Tarr $6,000.00. Profits and losses were divided: Barr three-sixths, Carr two-sixths, and Tarr one-sixth.
   In two-column general journal form, give the entries necessary to record the admission of Harr under each of the following conditions:
   a. Harr paid Barr personally $6,200.00 for a 20 per cent interest in the capital.
   b. Harr paid Barr personally $6,000.00 for a 20 per cent interest in the capital.
   c. Harr agreed to an adjustment of $3,000.00 for goodwill developed prior to his admittance. He then paid Barr personally $9,000.00 for one-half his equity.
   d. Harr agreed to an adjustment of $3,000.00 for goodwill developed prior to his admittance. He then paid $9,000.00 into the partnership for a 20 per cent interest in the $43,000.00 of capital.

3. *D* was seeking admission into the partnership of *A*, *B*, and *C* in which the capital account balances were $10,000.00, $20,000.00, and $30,000.00, respectively. *A*, *B*, and *C* shared profits and losses according to their capital equities.
   Required:
   a. The entries in two-column journal form on the books of the partnership for each of the following sets of facts:
      (1) *D* paid into the partnership $15,000.00 for a one-fourth interest in the $75,000.00 of capital.
      (2) *D* paid into the partnership $20,000.00 for a one-fourth interest in the $80,000.00 of capital.
      (3) *D* paid $15,000.00 to *C* only for a one-fourth interest in the capital.
      (4) *D* paid $20,000.00 to *C* only for a one-fourth interest in the capital.
      (5) *D* paid $20,000.00 to *B* and *C* only. It was agreed that *B*, *C*, and *D* would become equal partners.
   b. Under the conditions set forth in 5 above, how much of the $20,000.00 cash went to *B* and how much to *C*? Submit all figures.

4. Dean was seeking admission into the partnership of Alder, Boss, and Colt in which the capital account balances were $20,000.00,

$25,000.00, and $45,000.00, respectively. Alder, Boss, and Colt shared profits and losses equally.

Dean paid $30,000.00 to the old partners as individuals for a one-fourth interest in the capital. It was agreed that the proportionate capital interests of the old partners would remain the same.

Required:

a. The entry or entries on the books of the partnership to record the admission of Dean.

b. Submit figures to show how the cash paid by Dean should have been distributed.

c. Rework requirements *a* and *b*, assuming that Alder, Boss, and Colt agreed to share the profit or loss according to their capital equities. Assume no other change in the facts.

5. The balance sheet of E. D. Trainer, December 31, 19A, was as follows:

E. D. TRAINER

BALANCE SHEET, DECEMBER 31, 19A

Assets

Current Assets:			
Cash			$ 1,000.00
Accounts Receivable		$4,500.00	
Less: Reserve for Bad Debts		90.00	4,410.00
Notes Receivable			500.00
Accrued Interest Receivable			2.00
Inventory of Merchandise			6,879.00
Total Current Assets			$12,791.00
Deferred Charges:			
Prepaid Insurance		$ 140 00	
Prepaid Rent		12 00	
Total Deferred Charges			152.00
Fixed Assets:			
Land		$5,400.00	
Building	$10,000 00		
Less: Reserve for Depreciation	1,200.00	8,800.00	
Furniture and Fixtures	$ 1,500.00		
Less: Reserve for Depreciation	700.00	800.00	
Total Fixed Assets			15,000.00
Total Assets			$27,943.00

Liabilities

Current Liabilities:	
Accounts Payable	$ 1,618.00
Notes Payable	1,300.00
Accrued Salaries Payable	120.00
Accrued Taxes Payable	300.00
Accrued Mortgage Interest Payable	90.00
Total Current Liabilities	$ 3,428.00
Fixed Liabilities:	
Mortgage Payable	3,000.00
Total Liabilities	$ 6,428.00

Proprietorship

E. D. Trainer, Capital	21,515.00
Total Liabilities and Proprietorship	$27,943.00

As the business needed additional capital, Trainer decided to convert his sole proprietorship into a partnership and admitted T. E. Durkin as a partner as of January 1, 19B.

Trainer and Durkin agreed to make the following modifications in the value of the assets:

a. The reserve for bad debts was increased $300.00.

b. The land was increased to $7,000.00.

c. The reserve for depreciation of building was reduced to $800.00.

Durkin then paid $15,000.00 cash for a one-third interest in the amount of capital in the business immediately after his payment and the adjustment of the asset values.

Required:

a. The journal entries necessary to adjust the records of the business for the asset value changes and to record the admission of Durkin.

b. A balance sheet showing the financial condition of the new partnership immediately after the admission of Durkin.

6. *D* wished to withdraw from the partnership of *A*, *B*, *C*, and *D*. After the books were closed for the calendar year 19A the capital accounts of the partners had balances of $15,000.00, $15,000.00, $30,000.00, and $20,000.00, respectively. Profits and losses were shared 20 per cent, 20 per cent, 35 per cent, and 25 per cent, respectively.

Prepare the entry or entries in general journal form on the books of the partnership for each of the following sets of facts:

a. At 10 per cent a capitalization of the excess earnings of the five years preceding January 1, 19B, resulted in goodwill of $20,000.00. However, only *D*'s share of the goodwill was recorded. Then *D* was given a check in the amount of his capital balance.

b. The partners agreed to record the following changes in asset values:
   (1) An increase of $5,000.00 in the value of the land.
   (2) A decrease of $1,000.00 in the reserve for bad debts.
   Then *D* was given a check equal to his capital balance.

c. The partners agreed to record the following corrections in the reserves for depreciation:
   (1) An increase of $5,000.00 in the reserve for depreciation of buildings.
   (2) An increase of $1,500.00 in the reserve for depreciation of store equipment.
   (3) An increase of $500.00 in the reserve for depreciation of office equipment.
   Then *D* accepted a check for $16,250.00 in settlement of his capital balance.

d. The partners accepted the balance sheet of December 31, 19A as a correct statement of values but paid *D* $25,000.00 for his interest.

7. The adjusted trial balance of the partnership of Dodd, Eck, and Fell showed the following as of December 31, 19A:

Dodd, Capital.........	$25,000.00	Dodd, Drawing (Dr.)...	$4,000.00
Eck, Capital..........	15,000.00	Eck, Drawing (Dr.).....	3,000.00
Fell, Capital..........	10,000.00	Fell, Drawing (Dr.).....	1,000.00

The partners shared profits and losses as follows: Dodd 5/9, Eck 1/3, and Fell 1/9.

The net profit for 19A was $7,650.00.

Because they had grown old, the partners decided to liquidate as of January 1, 19B. At that date there was $10,000.00 of cash and the liabilities amounted to $14,000.00. The noncash assets were sold for $47,980.00 cash.

Required:

a. The journal entries as of December 31, 19A, to close the Profit and Loss account and the drawing accounts.

b. The entries in general journal form to record
   (1) The sale of the assets.
   (2) The liquidation of the liabilities.
   (3) The distribution of the profit or loss of liquidation.
   (4) The distribution of the remaining cash to the partners.

8. Atwood, Bates, and Croft had been in partnership a number of years. The volume of business had fallen off and they decided to liquidate as of the close of business December 31, 19A.

	Case A	Case B
Capital account balances, January 1, 19A:		
Atwood	$18,000.00	$15,000.00
Bates	10,800.00	9,200.00
Croft	3,600.00	1,400.00
Withdrawals during 19A:		
Atwood	450.00	225.00
Bates	320.00	180.00
Croft	110.00	55.00
Profit and loss sharing ratio:		
Atwood	$5/12$	$4/7$
Bates	$1/3$	$2/7$
Croft	$1/4$	$1/7$
Net loss shown by statement of profit and loss for the year 19A	$ 4,800 00	$ 3,500.00
Liabilities as of December 31, 19A	3,500.00	2,800.00
Cash as of December 31, 19A	1,750.00	960.00
Noncash assets as of December 31, 19A realized	24,000.00	11,700.00

In each case submit a statement to show how the remaining cash should have been distributed among the partners. If necessary, assume that any partner having a debit balance in his capital account was unable to make good.

9. Walls, Wells, and Wills were partners who shared profits and losses in the ratio of 3, 2, and 1, respectively. They decided to liquidate as of the close of business December 31, 19A, when their balance sheet revealed the following condition:

WALLS, WELLS, AND WILLS

Balance Sheet, December 31, 19A

Assets

Cash		$ 2,250.00
Accounts Receivable	$18,200.00	
Less: Reserve for Bad Debts	450.00	17,750 00
Notes Receivable		1,250.00
Inventory of Merchandise		24,700.00
Investments in United States Bonds		15,000.00
Furniture and Fixtures	$ 3,800.00	
Less: Reserve for Depreciation	1,300.00	2,500.00
Total Assets		$63,450.00

Liabilities

Accounts Payable	$10,000.00	
Notes Payable	4,500.00	
Accrued Interest Payable	50.00	
Total Liabilities		14,550.00
Proprietorship:		
Walls, Capital	$24,450.00	
Wells, Capital	16,300.00	
Wills, Capital	8,150.00	$48,900.00

Immediately after the above balance sheet was prepared, Wills sold his interest in the business to Wells for $6,500.00 cash, rather than wait for his money until liquidation was completed.

Assets produced their book values except

a. Furniture and fixtures were sold for $1,800.00.
b. Accounts receivable realized $14,750.00.
c. Merchandise inventory was sold for $22,000.00.

Expenses of liquidation totaled $2,150.00.

Required:

a. Entries in general journal form on the partnership books to record
  (1) The sale of Wills's interest to Wells.
  (2) The realization of the assets.
  (3) The payment of the liabilities and expenses of liquidation.
  (4) The remaining entries necessary to close the records completely.

b. The capital account of each partner showing all items from December 31, 19A, to the completion of liquidation. Label each item in each account.

c. How much did Wills make or lose because he sold his interest to Wells? Submit your computation.

10. On December 31, 19A, Kane and Leed had credit balances in their capital accounts of $20,000.00 and $5,000.00, respectively. They decided to liquidate the partnership as of that date. The firm had $75,000.00 of assets, including $5,000.00 of cash. The liabilities included a $10,000.00 loan from Kane and a $5,000.00 loan from Leed. The noncash assets were sold at a loss of $14,000.00.

Required:

a. Compute the amount of liabilities to other than partners.
b. Entries in general journal form to record the sale of the assets, the liquidation of the liabilities to other than partners, and the distribution of the loss of liquidation.
c. The remaining entries necessary to close the records completely.

Chapter XXIII. Corporations

1. On December 31, 19A, three corporations each had a book value of $65,000.00. From the following information selected from their balance sheets determine the missing facts:

	A	B	C
Assets	$85,000.00	$162,000.00	x
Liabilities	x	x	$120,000.00
Capital Stock	60,000.00	x	x
Surplus (or Deficit)	x	(Deficit) 6,000.00	(Deficit) 95,000.00

2. On January 1, 19A, a corporation began operations with an authorized capital stock of $350,000.00, of which $250,000.00 was issued at par for cash. On December 31, 19A, the balance sheet showed assets of $340,000.00 and liabilities of $105,000.00. No capital stock changes occurred during the year nor were any dividends declared to the stockholders.
On December 31, 19B, the balance sheet showed assets of $320,000.00, and liabilities of $60,000.00, including $10,000.00 of dividends payable. During the year 19B, $25,000.00 of the capital stock was retired at par.
The par value of each share of stock was $25.00.

NOTE: When a cash dividend is declared the required amount is transferred from Surplus to Dividends Payable, a current liability.

Required:
a. The amount of surplus or deficit as of December 31, 19A.
b. The amount of surplus or deficit as of December 31, 19B.
c. The book value of each share as of December 31, 19A.
d. The book value of each share as of December 31, 19B.
e. The net profit or loss for the year 19A.
f. The net profit or loss for the year 19B.

3.

	Case A	Case B	Case C	Case D
Authorized Capital Stock	$100,000	$200,000	$300,000	$400,000
Par value of each share	100	50	25	10
Unissued Capital Stock Jan. 1	15,000	60,000	90,000	150,000
Unissued Capital Stock Dec. 31	10,000	10,000	70,000	130,000
Treasury Stock January 1	5,000	15,000	10,000	20,000
Treasury Stock December 31	0	5,000	0	10,000
Assets—January 1	286,500	498,000	648,200	795,300
Assets—December 31	312,000	516,000	711,750	801,750
Liabilities—January 1	191,000	333,000	466,200	580,100
Liabilities—December 31	209,000	341,000	474,750	535,250

Assume that any sale of capital stock during the year was made at par.
Required for each case:

a. The surplus or deficit as of January 1.
b. The surplus or deficit as of December 31.
c. The book value of each share as of January 1.
d. The book value of each share as of December 31.
e. Assuming a cash dividend of $10,000.00 was declared during the year, what was the net profit or loss for the year?

4. A corporation began operations on January 1, 19A. The information that follows pertains to the first two years of its history.

	Case A		Case B	
	19A December 31	19B December 31	19A December 31	19B December 31
Authorized Capital Stock	$200,000	$200,000	$300,000	$300,000
Par value of each share	25	25	50	50
Unissued Capital Stock	30,000	10,000	70,000	20,000
Treasury Stock	0	10,000	0	10,000
Assets	350,000	428,000	480,000	506,000
Dividends Payable	0	10,800	0	13,500
Other Liabilities	195,000	219,400	268,000	207,500

All transactions in capital stock were made at par.
Required:

a. The book value of each share as of December 31, 19A.
b. The book value of each share as of December 31, 19B.
c. The surplus or deficit as of December 31, 19A.
d. The surplus or deficit as of December 31, 19B.
e. The balance of the Capital Stock account as of December 31, 19A.
f. The balance of the Capital Stock account as of December 31, 19B.
g. The net profit or net loss for the year 19A.
h. The net profit or net loss for the year 19B.

5. Rule a capital stock ledger account similar to the illustration in Chapter XXIII. Caption it Frank Hardin and then make the proper entries therein for the following transactions:

August	1.	Hardin subscribed and paid for 500 shares of stock at par $50.00. Certificate 465 was issued to him.
October	8.	Hardin sold 100 shares to Craig Bragg at $54.00 a share. Certificate 524 for 100 shares was issued to Bragg and 525 for 400 shares was issued to Hardin.
October	28.	Hardin sold the balance of his stock to Sam Kram at $57.00 a share. Certificate 603 was issued to Kram.

December 15. Hardin purchased Certificate 524 from Bragg and Certificate 603 from Kram at $52.00 a share. Certificates 825, 826, 827, 828, and 829, each for 100 shares, were issued to Hardin. Bragg was the transferor on Certificate 825.

Chapter XXIV. Corporations (*Continued*)

1. The following information was taken from the ledger of the Hillsdale Corporation:

Capital Stock	$70,000.00
Capital Stock Subscribed	7,500.00
Subscribers to Capital Stock	4,000.00
Premium on Subscribed Capital Stock	750.00
Treasury Stock	2,000.00
Surplus from Donated Stock	2,500.00

The corporate charter authorized 1,000 shares of stock with a par value of $100.00 each.
Required:
a. The number of unissued shares.
b. The number of issued shares.
c. The number of outstanding shares.
d. The number of unsubscribed shares.

2. The Locke Bolt Company was authorized to issue 2,000 shares of common capital stock par value $50.00 a share. One thousand shares were sold by subscription at 44 and were paid for in cash 30 days later. Subsequently the balance of the stock was sold for cash at 46. One hundred shares were donated to the corporation by the stockholders and these 100 shares were resold at 45.
Required:
a. The entries, in general journal form, to record the above transactions.
b. A balance sheet after all the above facts are recorded.

3. The authorized capital stock of the Mandrake Manufacturing Corporation was $1,000,000.00; the par value of a share was $100.00. Three-fifths of the authorized issue was sold by subscription at par, the subscribers paying 10 per cent cash at the time of subscription and agreeing to pay the balance at the call of the board of directors. Two weeks later the board of directors called for 20 per cent of the unpaid balance in 30 days, 40 per cent in 60 days, and 40 per cent in 90 days from the call date. The several calls were met by all subscribers.
The promoter was given 50 shares in full settlement of his services. Five hundred shares were sold for cash at a premium of 5 per cent.

Submit the entries, in general journal form, to record the above transactions.

4. From the following information set up the proprietorship section of the balance sheet:

Authorized Stock (par $100.00)	$250,000.00
Unissued Stock	115,000.00
Treasury Stock	4,000.00
Capital Stock Subscribed (par)	80,000.00
Subscribers to Capital Stock	21,000.00
Premium on Capital Stock	4,000.00
Surplus (Earned and free)	35,000.00

The Premium on Capital Stock of $4,000.00 applied entirely to the shares subscribed but not fully paid.

The corporate assets included the $21,000.00 owed on unpaid subscriptions.

The liabilities totaled $50,000.00.

Additional requirements:

a. What was the total of the corporate assets?

b. In the method of recording capital stock described in Chapter XXIV, where would you obtain the figure

(1) For the authorized capital stock?
(2) For the unissued stock?
(3) For the treasury stock?
(4) For the outstanding stock?

5. H. E. Shoup purchased 500 shares of the unissued capital stock of the Acme Manufacturing Company at the par value of $100.00 a share. Shoup later sold 100 shares to Everett Betz at $98.00 a share.

To provide working capital for the corporation Shoup donated 100 shares to the corporation. These shares were marketed by the corporation at $94.00 a share.

a. What was the effect of the original sale to Shoup on the corporate net worth?

b. What was the effect of Shoup's sale to Betz on the corporate balance sheet?

c. What was the effect of Shoup's sale to Betz on the capital stock ledger and the capital stock controlling account?

d. Would your answer to *b* of this question be different if Shoup had sold the 100 shares to Betz at $102.00 instead of $98.00 a share? Explain.

e. What was the effect on the corporate balance sheet

(1) Of the donation of 100 shares by Shoup to the corporation?
(2) Of the sale of the 100 donated shares by the corporation?

6. The Chase Clothing Company had an authorized capital stock of $80,000.00 consisting of 3,200 shares of $25.00 par value.
   The outstanding shares were held as follows:

R. W. Chase	1,500 shares
A. L. Chase	700 shares
W. P. Prentice	300 shares

   The remaining shares were unsubscribed and unissued.
   On December 31, 19A, A. L. Chase decided to retire and the corporation purchased his 700 shares for $28,000.00 cash, although the corporate earned surplus on that date was $50,000.00.
   On January 3, 19B, R. W. Chase approached W. P. Prentice and offered to purchase his 300 shares with corporate funds, at a price equal to their book value as determined immediately after recording the purchase of the stock from A. L. Chase. W. P. Prentice accepted the offer and was given a check in full settlement.
   Required:
   a. The book value of each share of stock immediately before the purchase of stock from A. L. Chase.
   b. The necessary entry to record the purchase of the treasury stock on December 31, 19A.
   c. The book value of each share of stock immediately after the purchase of stock from A. L. Chase.
   d. The necessary entry to record the purchase of the treasury stock on January 3, 19B.
   e. The book value of each share of stock immediately after the purchase of stock from W. P. Prentice ignoring possible profits during the interval.
   f. The number of issued shares immediately after the purchase of the treasury stock on January 3, 19B.

7. Record the following treasury stock transactions of the Winter Corporation in general journal form. The par value of each share was $25.00.
   a. Stockholders donated 150 shares to the corporation to be sold to provide additional working capital.
   b. The corporation resold 80 of the above donated shares for $23.00 a share.
   c. The corporation resold 70 of the above donated shares for $26.00 a share.
   d. The corporation purchased 125 shares of its own stock in the open market at $26.00 a share and subsequently sold them as follows:
      (1) 50 shares for $28.00 each.
      (2) 50 shares for $25.00 each.
      (3) 25 shares for $26.00 each.

e. The corporation purchased 140 shares of its own stock in the open market at $23.00 a share and subsequently sold them as follows:
   (1) 40 shares for $21.00 each.
   (2) 40 shares for $25.00 each.
   (3) 60 shares for $23.00 each.

8. The authorized capital stock of the Linsley Corporation consisted of 500 shares of preferred stock with a par value of $100.00 a share and 1,000 shares of no par value common stock.
The corporation sold for cash 300 preferred shares at a premium of 2 per cent, and 100 preferred shares at a premium of 1 per cent.
One-fifth of the authorized common shares were issued for land needed by the corporation, and 50 of the common shares were issued for services rendered to the corporation in connection with its organization. The directors decided that the land was worth $8,000.00 and the services $1,750.00.
Three-fifths of the authorized common shares were sold for cash at $41.00 a share. The directors assigned a stated value of $35.00 to each of these shares.
Subsequently, 50 of the preferred shares and 50 of the common shares that were issued in payment of the land were donated to the corporation. The corporation then resold half the preferred treasury shares at $103.00 a share and half the common treasury shares at $42.00 a share.
Required:
a. The entries in general journal form to record the above transactions.
b. A balance sheet after all the above facts were recorded.

Chapter XXV. Corporations (*Concluded*)

1. From the following list select those items that are subdivisions of surplus and properly classify them. Total each class and extend the figure that would appear in the corporate balance sheet as the total surplus as of the date these facts were selected.

Surplus (Balance of ledger account)	$24,800.00
Reserve for Depreciation	35,200.00
Surplus from Donated Land	15,000.00
Reserve for Extension of Plant	10,000.00
Reserve for Federal Taxes Payable	5,800.00
Premium on Capital Stock	6,400.00
Reserve for Sinking Fund	14,500.00
Reserve for Bad Debts	1,400.00
Reserve for Contingencies	12,800.00

2. On December 31, 19A, the proprietorship section of the balance sheet of the Hopewell Manufacturing Company revealed the following information:

	Case A	Case B
Authorized Capital Stock	2,000 shares	5,000 shares
Par value of each share	$ 50.00	$ 25.00
Unissued Capital Stock	800 shares	1,500 shares
Treasury Stock	100 shares	500 shares
Surplus (Earned and free)	$20,000.00	$25,000 00
Capital Surplus	10,000.00	5,000.00

Required:

a. The book value of each share.

b. The entry to record the declaration of a 15 per cent cash dividend.

c. The entry to record the payment of the dividend.

d. The book value of each share after the payment of the dividend.

e. Would the answer to *d* be different if you were asked to determine the book value of each share after the declaration but before the payment of the dividend? Why or why not?

f. Would your answer to *d* be different if the dividend had been a stock dividend instead of a cash dividend and the shares had been issued? If the book value of each share is the same, explain why. If the book value of each share is different, submit figures to show the proper book value.

3. On January 1, 19A, the outstanding capital stock of a corporation was $80,000.00. The par value of each share was $100.00. On that date the company had a deficit of $10,000.00. During the year the company sold 200 shares of its unissued capital stock at par. Between the date of selling these 200 shares and the end of the year the corporation declared and paid a cash dividend of 10 per cent. On December 31, 19A, the corporate balance sheet revealed a surplus of $20,000.00.

Required:

a. The net profit for the year 19A.

b. If the cash dividend of 10 per cent had been declared and paid prior to the sale of the stock and all other facts remained the same, what would have been the net profit for the year 19A?

4. From the following facts determine

a. The balance of the Surplus account in the unadjusted trial balance as of December 31, 19A.

b. The balance of the Surplus account in the postclosing trial balance as of December 31, 19A.

c. The amount of surplus shown by the balance sheet as of December 31, 19A.
d. The corporate book value as of December 31, 19A.

	Case A	Case B
January 1—Capital Stock Outstanding	$130,000.00	$115,000.00
January 1—Surplus account in the ledger	10,000.00(Dr.)	30,000.00(Cr.)
Par value of each share	100.00	50.00
June 1—Shares issued at par	200	300
December 1—Cash dividend declared	8%	10%
December 1—Creation of Reserve for Contingencies	$ 10,000.00	$ 10,000.00
Net profit for the year 19A	45,000.00	22,000.00

5.

	Case A	Case B	Case C	Case D	Case E
Capital Stock Authorized	$300,000	$200,000	$250,000	$150,000	$350,000
Unissued Capital Stock	120,000	80,000	50,000	30,000	35,000
Surplus account in the ledger	90,000	60,000	40,000	25,000	70,000
Reserve for Contingencies	10,000	15,000	20,000	20,000	25,000
Capital Surplus	15,000	10,000	15,000	10,000	15,000
Par value of each share	100	50	25	10	5

Required:
a. The outstanding capital stock.
b. The net worth of the corporation.
c. The book value of each share.
d. The amount of a 10 per cent cash dividend.
e. The book value of each share after the 10 per cent cash dividend was declared and paid.
f. If the dividend were a stock dividend instead of a cash dividend, what would have been the book value of each share immediately after the shares were issued?

6. The following facts were selected from various sections of a corporate balance sheet dated December 31, 19A:

Capital Stock Authorized—10,000 shares at $25.00 par value.
Unissued Capital Stock—1,000 shares.

Premium on Capital Stock	$ 9,000.00
Surplus (Earned and free)	75,000.00
Reserve for Plant Extension	15,000.00
Reserve for Flood Loss	35,000.00

Reserve for Bad Debts	$ 1,200.00
Reserve for Taxes Payable	3,600.00
Reserve for Sinking Fund	20,000.00

Required:

a. Capital stock outstanding.
b. Appropriated surplus.
c. Earned surplus.
d. Capital surplus.
e. The book value of each share.
f. The amount of a 5 per cent cash dividend.
g. The book value of each share after the 5 per cent cash dividend.
h. The book value of each share after the satisfaction of the dividend if it had been a stock dividend instead of a cash dividend.
i. If in *f* above the directors had declared a 10 per cent dividend payable half in cash and half in stock, what would have been the book value of each share immediately after the cash was paid and the necessary shares issued?

7. The following facts were selected from various sections of a corporate balance sheet dated December 31, 19A:

Capital Stock Authorized—5,000 shares at $50.00 par value.
Unissued Capital Stock—500 shares.

Premium on Capital Stock	$ 2,500.00
Surplus (Earned and free)	20,000.00
Reserve for Depreciation	12,500.00
Reserve for Sinking Fund	16,000.00
Reserve for Taxes Payable	4,800.00
Reserve for Contingencies	10,000.00
Donated Surplus	3,500.00

Required:

a. Capital stock outstanding.
b. Appropriated surplus.
c. Earned surplus.
d. Capital surplus.
e. The book value of each share.
f. The amount of a 5 per cent cash dividend.
g. The book value of each share after the 5 per cent cash dividend.
h. The book value of each share after the satisfaction of the dividend if it had been a stock dividend instead of a cash dividend.
i. If in *f* above the directors had declared a 10 per cent dividend payable half in cash and half in stock, what would have been the book value of each share immediately after the cash was paid and the necessary shares issued?

8. The following information was taken from the balance sheet of the Griswold Novelty Corporation:

Assets (debit balances)	$246,080.00
Liabilities (various)	78,230.00
Capital Stock Authorized	150,000.00
Unissued Capital Stock	50,000.00
Treasury Stock	10,000.00
Surplus and Reserves	77,850.00

You are puzzled about the exact nature of the last item, request that it be analyzed, and are supplied with the following information:

Surplus account in the ledger	$11,000.00
Reserve for Plant Extension	8,000.00
Reserve for Depreciation	32,000.00
Revaluation Surplus	15,000.00
Reserve for Contingencies	10,000.00
Donated Surplus	1,850.00
	$77,850.00

Required:

a. The net worth section of the corporate balance sheet with each subdivision properly classified.

b. The balance of the Capital Stock account in the ledger.

c. The total of the checks sent to stockholders if a 6 per cent dividend were declared and paid in cash.

9. The following information was taken from the balance sheets of the Midland Manufacturing Company prepared as of December 31, 19A, and December 31, 19B:

	December 31, 19A	December 31, 19B
Sundry Assets (debit balances)	$479,400.00	$600,800.00
Sundry Liabilities	127,000.00	135,000.00
Capital Stock Authorized (par $50.00 a share)	400,000.00	400,000.00
Unissued Capital Stock	150,000.00	70,000.00
Treasury Stock	20,000.00	20,000.00
Premium on Capital Stock	0	12,000.00
Donated Surplus	20,000.00	20,000.00
Surplus (Earned and free)	60,000.00	70,000.00
Reserve for Bad Debts	1,800.00	2,000.00
Reserve for Depreciation	13,600.00	16,800.00
Reserve for Sinking Fund Bonds	12,000.00	15,000.00
Reserve for Contingencies	15,000.00	20,000.00

On February 13, 19B, the corporation declared and paid a cash dividend of $16,100.00.

Required:

a. Prepare a statement of the net worth of the corporation as of December 31, 19A and another as of December 31, 19B, showing clearly the determination of the
   (1) Outstanding capital stock.
   (2) Surplus
      (*a*) Free
      (*b*) Appropriated
      (*c*) Capital

b. Compute the book value of each share of stock at the beginning and the end of the year 19B.

c. The decrease in the unissued capital stock took place on March 1 when some capital stock was sold at a premium of $12,000.00. There were no changes in treasury stock during the year. On February 13, what rate of dividend was paid?

d. Set up the ledger account for Surplus (Earned and free) and determine the net profit or loss for the year.

e. If the corporation had declared and paid a cash dividend of 10 per cent on December 31, 19B, how much money would have been paid to the stockholders?

f. Determine the balance in the Capital Stock controlling account as of December 31, 19A, and December 31, 19B.

10. Refer to Problem 9.

Required:

a. Compute the book value of the corporation at the beginning and the end of the year 19B by using the facts that were not necessary in the solution of part *a* of that problem.

b. What account was debited to increase each of the reserves stated in the problem?

c. If the board of directors on December 31, 19B had declared a 10 per cent stock dividend in addition to the cash dividend of part *e*, how many shares of stock would have been given the stockholders? Make the necessary journal entries to record the declaration of the cash and stock dividends and the issuance of the checks and the shares to stockholders.

d. If the board of directors on December 31, 19B had declared a 10 per cent stock dividend and issued the necessary stock certificates, and the cash dividend of 10 per cent had not been declared until January 31, 19C, after the net profit for year 19B had been determined, how much money would have been paid to the stockholders?

11. The following data were taken from the balance sheet of the Royal Car Company as of December 31, 19A:

	Case A	Case B
Assets (debit balances)	$519,300.00	$419,460.00
Dividends Payable	17,600.00	13,300.00
Other Liabilities	95,000.00	76,500.00
Capital Stock Authorized	300,000.00	250,000.00
Unissued Capital Stock	55,000.00	38,000.00
Treasury Stock	25,000.00	22,000.00
Surplus (Earned and free)	62,000.00	46,000.00
Surplus from Donated Land	25,000.00	19,000.00
Premium on Capital Stock	2,000.00	2,000.00
Reserve for Bad Debts	2,200.00	1,800.00
Reserve for Depreciation	23,500 00	19,860.00
Reserve for Contingencies	30,000.00	20,000.00
Reserve for Plant Extension	25,000.00	18,000.00
Reserve for Sinking Fund	17,000.00	13,000.00
Par value of each share of stock	50.00	25.00

Required:

a. Determine the book value of the corporation by subtracting the liabilities from the assets, then continue and present the net worth section of the balance sheet, showing in detail the determination of the
   (1) Outstanding capital stock.
   (2) Appropriated surplus.
   (3) Total earned surplus.
   (4) Capital surplus.
   (5) Total surplus.

b. The balance of the Capital Stock controlling account in the ledger.

c. The balance of the Surplus account in the ledger.

d. The percentage of the dividend declared and unpaid.

e. The book value of each share of stock.

f. The book value of each share of stock if the dividend had not been declared.

12. Refer to Problem 11 and assume the balance sheet prepared 12 months before had shown

	Case A	Case B
Unissued Capital Stock	$75,000.00	$50,000.00
Treasury Stock	30,000.00	28,000.00
Reserve for Depreciation	18,500.00	14,660.00
Reserve for Contingencies	25,000.00	14,000.00
Reserve for Plant Extension	20,000.00	12,000.00
Reserve for Sinking Fund	13,000.00	8,000.00
Dividends Payable	19,500.00	17,200.00
Surplus (Earned and free)	48,900.00	59,600.00

Determine the net profit for the year 19A

a. By setting up the Surplus account in the ledger.

b. By preparing an analysis of proprietorship.

13. The Earned Surplus account of the Keswick Company had a credit balance of $35,000.00 as of December 31, 19A.

During 19B the following errors were discovered:

(1) A three-year fire insurance policy purchased for $360.00 as of December 1, 19A, was charged to Insurance. This account was closed at the end of the year, without adjustment, to the Profit and Loss account.

(2) A $1,000.00 return of merchandise to Creditor X on December 17, 19A, was not recorded despite the receipt of the credit memorandum.

(3) Repairs made to the roof of a company building late in December of 19A at a cost of $500.00 were charged to the Buildings account.

(4) Property taxes of $1,100.00 for 19A were not entered until the date of payment, May 1, 19B.

(5) Patent expiration of $2,000.00 was charged as of December 31, 19A, to the Goodwill account.

(6) On December 31, 19A, an invoice for $2,000.00 of merchandise was received and recorded but the goods, which had been received, were not included in the inventory.

(7) Legal fees of $75.00 incident to the purchase of land in 19A were charged to Miscellaneous Expenses.

Other items that affected the Earned Surplus account in 19B:

(8) December, 19B, marked the completion of an extension to one of the buildings, at which time the reserve for building extension had a balance of $11,000.00.

(9) The net profit for 19B was $25,000.00.

(10) The provision for the 19B federal taxes amounted to $6,200.00.

(11) A $7,000.00 reserve for possible inventory shrinkage was appropriated as of December 31, 19B.

(12) On December 31, 19B, the directors declared a 10 per cent stock dividend on the common shares, par $100.00, of which stock there were 1,000 shares authorized, 200 shares unissued, and 50 shares in the treasury. The dividend was payable on January 31, 19C to stockholders of record as of January 15, 19C.

Required:

a. The journal entries necessary to correct the records and to record items 8 to 12, inclusive.

b. The statement of earned and free surplus for the year 19B.

14. After the adjusting and closing entries for the calendar year 19C were posted, the Surplus account of *X* Company showed a credit balance of $35,000.00. The books had not been audited for three years and the board of directors authorized a firm of certified public accountants to examine the records and prepare, among other reports, a correct statement of earned and free surplus for the three-year period ended December 31, 19C. The auditors worked during January of 19D and disclosed the following errors of

a. The past year, 19C:
   (1) Unearned rent $250.00 was ignored as of December 31.
   (2) The Property Taxes account was debited with $480.00 which accrued during 19B but for which no adjusting entry had been made as of December 31, 19B.
   (3) Both the sales journal and purchase journal had been overadded $100.00 in the month of August when a temporary bookkeeper was doing the work while the regular bookkeeper was on vacation. The sales and purchase journals each included only one money column, and subsidiary ledgers were kept for customers and creditors.
   (4) A Reserve for Plant Extension account with a balance of $20,000.00 remained on the books, although the completion of the extension in 19C had made the reservation of profits no longer necessary.

b. Two years before, 19B:
   (1) The inventory of merchandise taken December 31 was understated $500.00.
   (2) Premium on capital stock of $3,600.00 was closed to the Profit and Loss account.

c. Three years before, 19A:
   (1) Cash disbursements of $2,500.00 for an advertising campaign had been charged to Goodwill.
   (2) Provision for depreciation was understated $300.00 net.
   (3) Repairs to the pavement leading in from the street were charged to the Land account. Cost $45.00.
   (4) No adjustment was made as of December 31 for accrued wages of $640.00.

The statements of profit and loss before the above errors were discovered showed a net profit of

a. $11,000.00 for the year 19C.
b. $9,000.00 for the year 19B.
c. $7,000.00 for the year 19A.

No dividends were declared during the three years, and the only appropriation of surplus was the $20,000.00 to the reserve for plant extension as of December 31, 19B.

Assume no facts other than those stated.

Required:

a. The necessary journal entries to correct the records. Do not prepare correcting entries for errors that have been automatically corrected by counterbalancing errors.

b. A corrected statement of earned and free surplus for the three-year period ended December 31, 19C, showing clearly the computation of the correct net profit or loss of each year and the correct amount of earned and free surplus as of December 31 of each year. The correct balance of the Surplus account as of January 1, 19A, was $28,000.00.

Chapter XXVI. Reserves and Funds

1. Set up a balance sheet in account form, without using figures, and place the following items in their proper places and under the proper classifications:

Reserve for Unrealized Appreciation
Reserve for Compensation Insurance
Reserve for Damage Suit Pending
Reserve for Possible Inventory Shrinkage
Reserve for Property Taxes
Reserve for Depreciation
Reserve for Sales Discounts
Reserve for Contingencies
Reserve for Dividends
Reserve for Fire Loss
Reserve for Sinking Fund
Reserve for Obsolescence

2. Set up a balance sheet in account form, without using figures, and place the following items in their proper places and under the proper classifications:

Reserve for Flood Loss
Reserve for Purchase Discounts
Reserve for Plant Extension
Reserve for Redemption of Preferred Stock
Reserve for Decline in Inventory Value
Reserve for Bad Debts
Reserve for Working Capital
Reserve for Accidents
Reserve for Revaluation of Land
Reserve for Amortization of Patents
Reserve for Federal Income Tax

3. The following accounts were taken from the books of a corporation as of December 31, 19A:

	Case A	Case B	Case C	Case D	Case E
Premium on Capital Stock..	$10,000	$12,500	$15,000	$20,000	$ 25,000
Reserve for Bad Debts.....	3,000	2,500	1,800	3,500	4,000
Surplus (Free).............	40,000	28,000	26,000	12,000	31,000
Reserve for Plant Extension	15,000	10,000	8,000	20,000	12,000
Reserve for Sinking Fund...	21,000	18,000	15,000	25,000	16,000
Reserve for Depreciation...	18,500	21,500	24,000	35,000	48,000

Reserve for Contingencies..	$50,000	$40,000	$60,000	$80,000	$100,000
Donated Surplus...........	10,000	13,000	18,000	25,000	30,000
Revaluation Surplus........	16,000	32,000	45,000	31,000	34,000
Reserve for Redemption of Stock..................	20,000	30,000	40,000	50,000	60,000

You are asked to select those items which are proper subdivisions of surplus and to set up that part of the proprietorship section of the balance sheet.

4. On January 1, 19A, a corporation issued $200,000.00 of 6 per cent cumulative preferred stock at par. The purchasers of the stock understood that the company might redeem the stock after it had been issued for three years.

The board of directors decided to establish a preferred stock redemption fund by setting aside cash each year equal to 25 per cent of the net profit for the year. The money so set aside was placed in a savings account and all income earned by the fund was added to the fund. The board likewise provided that a reserve for preferred stock redemption be created and adjusted annually to agree with its related fund.

The net profit for 19A was $85,000.00, for 19B was $90,000.00, and for 19C was $100,000.00. Each year the holders of the cumulative preferred shares received their 6 per cent dividend in cash.

Required:

a. The entries to establish the fund and to create the reserve at the end of 19A.

b. The net earnings of the fund during 19B were $550.00. Make one entry to record them.

c. Assuming the net earnings of the fund were $1,200.00 in 19C, how much did the fund amount to after the corporate treasurer deposited the proper check at the close of 19C?

d. What entry was made at the close of 19C to bring the Reserve for Preferred Stock Redemption account up to its proper balance?

e. In February 19D, 691 shares of stock were purchased in the open market at 102 and retired. Each share had a par value of $100.00. Make the entry to record the retirement. The fund account was not closed as additional retirements were contemplated.

f. Make the entry to close the *entire* balance in the Reserve for Preferred Stock Redemption account.

g. How much, if any, was the net worth of the corporation changed by

(1) The creation of the fund?

(2) The recording of the total earnings of the fund?

(3) The creation of the reserve?
(4) The redemption of the stock?

h. Set up the ledger accounts for Preferred Stock Redemption Fund and Reserve for Preferred Stock Redemption and insert all necessary figures.

5. The Valley Department Store was located not far from a river which frequently overflowed its banks. Because of the prohibitive cost the store did not carry flood insurance.
On December 31, 19A, its balance sheet showed

Surplus	$150,000.00
Reserve for Flood Loss	50,000.00

On March 15, 19B, the most serious flood in the history of the store occurred and the resulting loss was $43,000.00, determined as follows:

Merchandise that floated away or was so badly damaged that it was unsalable had cost the company		$20,000.00
Merchandise that was partially damaged, which had cost the company $30,000.00, was sold for $18,000.00 cash. The loss was		12,000.00
Partial ruin of store equipment:		
Cost	$20,000.00	
Reserve for Depreciation	9,000.00	
Book value on March 15, 19B	$11,000.00	
Cash realized on sale	3,000.00	
Loss		8,000.00
Damage to the store building necessitated cash payments for		
Replacing plate glass windows	$ 1,800.00	
Cleaning, pumping, cementing, painting, etc.	1,200.00	
Cost of reconditioning the building		3,000.00
Total loss		$43,000.00

To replace the damaged assets the company purchased

Merchandise	$55,000.00
Store Equipment	30,000.00
Total	$85,000.00
Cash paid	35,000.00
Notes Payable bearing 6 per cent interest	$50,000.00

Required:

a. The entry to create the reserve for flood loss.

b. The effect of the creation of this reserve on the equity of the stockholders in the company.

c. The entries in two-column journal form to record the $43,000.00 flood loss.

d. The entries in two-column journal form to record the replacements.

e. The entry to close the Flood Loss account.

f. Ignoring all income and expense and loss items except the flood loss between December 31, 19A, and the date when the store was ready to resume normal operations, what will be the balance of the free surplus after recording the above facts?

g. Explain why the directors might have decided to increase the balance of the reserve after the flood.

6. At the end of each year the Morton Machine Company estimated its federal income tax and created a reserve for that amount. The estimated tax for the year ended December 31, 19A was $3,425.00 and for the year ended December 31, 19B was $4,130.00.
When the returns were prepared the tax was found to be $3,650.00 for 19A and $3,985.00 for 19B.
Required:

a. The adjusting journal entries at the close of 19A and 19B.

b. The entry or entries in general journal form to record the payment of the tax for 19A. For 19B.

7. The Gress Company valued its inventory at cost or market whichever is lower. On December 31, 19A, the inventory had a cost value of $40,000.00 and a cost or market whichever is lower value of $36,000.00. The statement of profit and loss for 19A showed a net profit of $8,000.00.
During 19B the company sold all the goods it had on hand at December 31, 19A, for $35,000.00 cash and went out of business. No merchandise was purchased in 19B. The operating expenses in 19B amounted to $9,000.00.
Required:

a. (1) The entries as of December 31, 19A, to record the inventory and its valuation reserve.
(2) The entry in 19B to remove the valuation reserve.
(3) The amount of gross profit or loss shown by the statement of profit and loss for 19B operations.

(4) The amount of net profit or loss shown by the statement of profit and loss for 19B operations.

(5) The amount of net profit or loss for 19A and 19B together.

b. Rework parts (3), (4), and (5) of requirement *a*, assuming that the company valued its inventory of December 31, 19A, at cost.

8. The December 31, 19A, inventory of merchandise of the Drexel Company had a cost value of $30,000.00. The company used the cost method of inventory valuation. However, in anticipation of a decline in market prices, the company created a $7,000.00 reserve for possible inventory shrinkage.

During 19B the above merchandise was sold for $28,000.00 cash. The December 31, 19B inventory had a cost value of $27,000.00 and there was no anticipation of decline in market prices.

Required:

a. The entry to create the reserve for possible inventory shrinkage as of December 31, 19A.

b. The summary entry to record the $28,000.00 of sales in 19B.

c. The entry necessary at the close of 19B with respect to the reserve for possible inventory shrinkage.

d. If at December 31, 19B, the directors had anticipated a $3,000.00 decline in market prices, what entry would have been made to adjust the reserve for possible inventory shrinkage?

9. Pullen Company valued its inventory of merchandise at cost or market whichever is lower. On December 31, 19A, the inventory had a cost value of $30,000.00 and a cost or market whichever is lower value of $25,000.00. An additional decline of $5,000.00 in market prices was anticipated.

During 19B the above merchandise was sold for $24,000.00 cash. On December 31, 19B, the inventory had a cost value of $27,000.00 and a cost or market whichever is lower value of $24,000.00. An additional decline of $6,000.00 in market prices was anticipated.

Required:

a. The entry to record the inventory of December 31, 19A, at cost.

b. The entries to create the valuation reserve and the surplus reserve as of December 31, 19A.

c. The summary entry to record the $24,000.00 of sales in 19B.

d. The amount of gross profit or loss shown in 19B on the merchandise which was sold for $24,000.00.

e. The entry to record the inventory of December 31, 19B, at cost.

f. The entries necessary at the close of 19B to adjust the two reserves.

10. On January 1, 19A the Downing Manufacturing Company had 2,000 shares of common stock outstanding, par value $100.00 each. The shares were held as follows:

Albert Marcus	700 shares
George Rapp	400 shares
Robert Irvine	300 shares
Frank Harris	600 shares

The surplus on the above date consisted of

Earned and free	$55,000.00
Reserve for Sinking Fund	25,000.00

The company declared and paid a 4 per cent cash dividend in June of 19A and declared a 4 per cent cash dividend on December 20, 19A, payable January 10, 19B. The net profit for 19A was $20,000.00. At the end of 19A the board of directors voted a $6,000.00 addition to the reserve for sinking fund and the creation of a $5,000.00 reserve for federal taxes.

On January 1, 19B, the company purchased one-half of Harris's stock at book value. They sold it on January 10, 19B, to James Ross for $190.00 a share.

In 19B a $5,100.00 check was issued in full settlement of the 19A federal income tax. The $100.00 excess of the actual tax over the estimate was charged to surplus. In 19B the company declared and paid a cash dividend of 9 per cent. The net profit for 19B was $25,000.00. At the end of 19B the directors voted for the following appropriations to the reserves:

Reserve for Federal Income Taxes	$ 6,000.00
Reserve for Possible Inventory Shrinkage	10,000.00
Reserve for Plant Extension	10,000.00
Reserve for Sinking Fund	3,000.00

Required:

a. A statement to show the book value of the corporation as of December 31, 19A.

b. Entries in general journal form to record the purchase and sale of the stock in January 19B.

c. A statement to show the book value of the corporation as of December 31, 19B.

Chapter XXVII. Bonds

1. A corporation had been issuing sinking fund bonds as money was needed for construction of additional plant facilities. You purchased some of these bonds under the conditions stated below:

	Case A	Case B	Case C	Case D	Case E
Par value of each bond....	$500.00	$1,000.00	$500.00	$100.00	$250.00
Life of bond issue	20 years	10 years	10 years	10 years	20 years
Rate of interest...........	6 per cent	5 per cent	7 per cent	6 per cent	5 per cent
Interest payable on the first of	June and December	March and September	April and October	May and November	April and October
Date of purchase.........	May 22	May 28	June 19	May 25	June 7
Number of bonds purchased	3	5	4	4	3
Price paid	96¾	98¼	100¼	100¾	94¾

Required:

a. The entry on your books in general journal form to record the purchase of the bonds and accrued interest.

b. The entry on the corporate books in general journal form to record the sale of the bonds you purchased.

c. The amount you received when interest was first paid you.

d. What was your income from interest on these bonds in the calendar year of purchase
  (1) If your records were on the cash basis?
  (2) If your records were on the accrual basis?

e. If you still hold the bonds at maturity, what entry or entries will be necessary on your books, in general journal form, on that date? Assume the bonds will be redeemed at par.

2.

	Case A	Case B	Case C	Case D	Case E
Face value of first-mortgage sinking fund bonds	$200,000	$300,000	$250,000	$350,000	$400,000
Interest payable on the first of	January and July	February and August	March and September	April and October	May and November
Annual interest rate	6%	5%	7%	5%	6%
Entire issue sold on date of issue in 19A	January 1 @ 96	February 1 @ 98	March 1 @ 95	April 1 @ 102	May 1 @ 97
Life of bond issue	10 years	15 years	20 years	10 years	15 years
Par value of each bond	$500	$100	$1,000	$100	$10,000

Assume the corporate records are on the calendar year basis.
Required:

a. The bond interest expense each twelve months.
b. The bond interest expense in the year of issue.
c. The bond interest expense in the year of maturity.
d. The unamortized bond discount or premium in the balance sheet as of December 31, 19F.
e. The face of the check you would give were you to purchase a bond at 97½ and accrued interest on May 25.
f. The entries on the books of the issuing corporation at maturity to record in two-column journal form
 (1) The retirement of the bond issue.
 (2) The payment of the interest due on that date.
 (3) The amortization of the remaining bond discount or premium.

3. The Cooper Copper Company plans to issue 10-year, first-mortgage sinking fund bonds that require a reserve for sinking fund to be kept in agreement with the sinking fund. $300,000.00 of these bonds have been authorized with interest at 6 per cent payable semiannually on January 1 and July 1.
Present the entries in general journal form that would be made on the books of the Cooper Copper Company to record

a. The sale of the entire issue at par.
b. The sale of the entire issue at a 10 per cent premium.
c. The sale of the entire issue at a 10 per cent discount.
d. The sale of $200,000.00 at a 5 per cent discount on January 1 and the remainder at a 2 per cent discount on May 13.
e. The payment of the interest on July 1 of the first year
 (1) Under assumption *c*.
 (2) Under assumption *d*.
f. The adjustment for the accrued interest as of December 31 of the year of issue.
g. The amortization of one year of bond premium as of December 31 of the year of issue under assumption *b*.
h. The amortization of one year of bond discount as of December 31 of the year of issue under assumption *c*.
i. The annual contribution to the sinking fund of $26,169.15. It is assumed that the fund will earn 3 per cent net each year.
j. The creation of the reserve for sinking fund at the end of the first year.
k. The retirement of the bonds at maturity. Assume the sinking fund contains $301,200.00 cash. Dispose of the balance in the fund.
l. The amortization as of the day before maturity of
 (1) The remaining premium under assumption *b*.

(2) The remaining discount under assumption *c*.

m. The removal of the reserve for sinking fund in the year of maturity.

4. At two different times in its long history the Foster Foundry Corporation used bond issues to finance its continuous growth. Both issues were sinking fund bonds which bore 6 per cent interest payable semiannually on May 1 and November 1. Under both bond indentures the corporation was required to deposit with a trust company a sum of money each twelve months, less the net earnings of the fund for the year. It was also mandatory to set up a sinking fund reserve and keep it equal to the fund.

	Issue No. 1	Issue No. 2
Par value of the issued bonds..................	$250,000.00	$500,000.00
Issue price on May 1..........................	103	95
Required increase in the sinking fund and sinking fund reserve each year..................	$ 12,500.00	$ 50,000.00
Life of the bond issue.........................	20 years	10 years

Required for each issue:

a. The entry in general journal form on the date of issue.

b. The entry in general journal form to record the interest payment on November 1 of the year of issue.

c. The entry to record the accrued interest as of December 31 of the year of issue.

d. The entry to record the amortization of eight months of bond premium or discount as of December 31 of the year of issue.

e. The amount of the bond interest expense in the statement of profit and loss

(1) In the year of issue.

(2) In the year following the year of issue.

f. The amount of the unamortized bond premium or discount in the balance sheet prepared one year and four months preceding the maturity date of the bonds.

g. On May 1 of the year of maturity

(1) The entry in general journal form to record the last interest payment.

(2) The entry to record the amortization of the remaining bond premium or discount.

(3) The entry in general journal form to record the final contribution to the sinking fund assuming the fund earned during its last year

(*a*) $7,125.00 on issue No. 1.

(*b*) $13,500.00 on issue No. 2.

(4) The entry in general journal form to record the retirement of the bonds.
(5) The entry to remove the reserve for sinking fund from the corporate records.

5. The Superior Manufacturing Company had $200,000.00 of outstanding bonds that had been issued at 96¼ on June 1, 19A. The bonds had an original life of 20 years and bore 6 per cent interest payable semiannually on June 1 and December 1. On June 1 of the current year, exactly 15 years after the date of the bond issue, the corporation paid the semiannual interest and redeemed one-half the bonds at par. The bonds were drawn by lot.
Required:
a. Compute the amount of bond discount to be amortized on the redeemed bonds for the five months they were outstanding in the current year. This amount of discount should be written off to Bond Interest Expense in part *c.*
Compute the amount of the bond discount applicable to the redeemed bonds for the five years they will not be outstanding. This amount of discount should be written off to Loss—Retirement of Bonds in part *c.*
b. The amount of the bond interest expense in the corporate statement of profit and loss for the calendar year in which one-half the bonds were redeemed. Submit computation.
c. Present in general journal form all the entries necessary on June 1 to record the redemption of the bonds, the payment of the interest, and the amortization of the bond discount on the redeemed bonds.
d. The unamortized bond discount figure in the balance sheet prepared as of December 31 of the year in which one-half the bonds were redeemed. Submit computation.

6. On January 1, 19A, a corporation issued $300,000.00 of bonds for cash at 95½. Interest was payable semiannually on July 1 and January 1 at 4 per cent a year. The bonds were to be outstanding for 20 years, but on the seventh January 1 from the date of issue the bonds were redeemed at 101¾ for cash.
Required:
a. The entry in general journal form to record the last payment of interest.
b. The book value of the bonds immediately preceding redemption.
c. One compound journal entry on the corporate books to record the redemption of the bonds.
d. One compound journal entry on the corporate books to record the redemption of the bonds if the redemption price had been 99½ instead of 101¾.

e. One compound journal entry on the corporate books to record the redemption of the bonds if the redemption price had been 94 instead of 101¾.

Note: In each of the three compound entries to record redemption, write off the last thirteen years of bond discount, and balance the entry with Loss—Retirement of Bonds or Profit—Retirement of Bonds, whichever is proper.

7. On May 1, 19A the Long Manufacturing Company sold for cash at 102—$250,000.00 of 20-year, first-mortgage sinking fund bonds. The bonds bore interest at 6 per cent payable semiannually on May 1 and November 1. The expenses of issuing the bonds amounted to $1,250.00 and were paid in cash. The par value of each bond was $500.00. The trust deed provided that on each May 1 following the issue of the bonds, there should be deposited with the trustee, the Merchants' Trust Company, $12,500.00 cash, less the net earnings on the securities purchased with sinking fund monies, and that a sinking fund reserve should be kept at an amount equal to the fund. Required:
   a. The entries in general journal form on the books of the Long Manufacturing Company to record
      (1) The issuance of the bonds, including the expenses of the issue.
      (2) The payment of the interest on November 1, 19A.
      (3) The adjustment for accrued interest as of December 31, 19A.
      (4) The amortization of eight months of bond premium as of December 31, 19A.
   b. The entries in general journal form on the books of the Long Manufacturing Company to record
      (1) The reversing entry as of January 1, 19B for the accrued interest.
      (2) The interest payment on May 1, 19B.
      (3) The contribution to the fund on May 1, 19B.
      (4) The creation of the reserve for sinking fund on May 1, 19B.
      (5) The interest payment on November 1, 19B.
      (6) The adjustment for accrued interest as of December 31, 19B.
      (7) The amortization of the bond premium as of December 31, 19B.
   c. The entries in general journal form on the books of the Long Manufacturing Company to record the following in the year of maturity:
      (1) The reversing entry as of January 1 for the accrued interest.
      (2) The interest payment on May 1.
      (3) The amortization of the remaining bond premium.
      (4) The last contribution to the fund. The net earnings of the fund during its last year were $3,000.00.

(5) The last addition to the reserve for sinking fund.
(6) The retirement of the bonds at par.
(7) The elimination of the reserve for sinking fund.

d. The amount of bond interest expense in the statement of profit and loss for
(1) 19A.
(2) 19B.
(3) The year of maturity.

e. The amount of the unamortized bond premium in the balance sheet prepared as of one year and four months preceding the maturity date of the bonds.

f. On August 13, 19B, F. O. Boyd purchased one of these bonds from C. O. Doyle at 100½ plus accrued interest.
(1) Record the purchase on the books of F. O. Boyd, in general journal form.
(2) Record the receipt of interest on November 1, 19B, on the books of F. O. Boyd, in general journal form.
(3) Record the sale on the books of C. O. Doyle, assuming he was one of the original purchasers of bonds from the Long Manufacturing Company.

g. Refer to *f* above and assume that F. O. Boyd sold the above bond on December 19, 19B, to M. T. Head at 101 plus accrued interest. Record the sale in general journal form.

Chapter XXVIII. Manufacturing Accounts and Statements

1. A corporation made and sold a tool kit known as the "Housekeepers' Friend." During 19A it produced 11,500 kits at a cost of $103,500.00 and sold 12,000 kits at a unit selling price of $15.00. On December 31, 19A, there were 3,000 kits on hand, all of which were produced in 19A. The gross profit of 19A was 41 per cent of net sales.
Required:
a. The number of kits on hand on January 1, 19A.
b. The inventory value of the kits on hand on January 1, 19A.
c. The average cost of each kit sold during 19A.
d. The kits on hand on January 1, 19A, were valued at the unit cost of production of the previous year. To what extent was the unit cost of production during 19A more or less?
e. The total amount for which the kits on hand January 1 were sold.

2. The following information was taken from the statements and supporting schedules of the Cortland Cutlery Company for 19A:

Inventory of Raw Materials, January 1.......	$ 6,000.00
Inventory of Work in Process, January 1......	5,000.00
Inventory of Finished Goods, January 1.......	10,000.00

Purchases of Raw Materials	$ 54,000.00
Direct Labor	37,500.00
Manufacturing Expenses	21,750.00
Cost of Raw Materials Used	52,000.00
Cost of Goods Manufactured	112,500.00
Sales	160,000.00
Cost of Goods Sold	115,000.00

Required:

a. Determine the value of the following inventories as of December 31, 19A:
   (1) Raw materials.
   (2) Work in process.
   (3) Finished goods.

b. Prepare the statement of the cost of goods manufactured and cost of goods sold for 19A.

3. The Williams Company manufactures and sells electric ironers. The following data were taken from the books and other records of the company for 19A:

Inventory of Raw Materials, January 1, 19A	$ 6,000.00
Inventory of Raw Materials, December 31, 19A	8,000.00
Inventory of Goods in Process, January 1, 19A	9,000.00
Inventory of Goods in Process, December 31, 19A	6,075.00
Inventory of Finished Goods, January 1, 19A	8,400.00
Interest on Notes Payable	312.00
Factory Heat, Light, and Power	6,200.00
Loss on Sale of Machinery	1,000.00
Purchase Returns, Raw Materials	3,000.00
Machinery Reinstallation Expense	2,900.00
Insurance on Plant and Machinery	2,300.00
Depreciation of Plant and Machinery	8,475.00
Property Taxes on Plant	2,100.00
Freight In	2,000 00
Direct Labor	56,000.00
Factory Supplies Used	3,000.00
Sales Discounts	3,200.00
Sales Returns	305.00
Factory Repairs	1,200.00
Indirect Labor	9,000.00
Packing Expenses	2,200.00
Sales	241,255.00
Small Tools Expense	800.00
Sales Supplies Used	1,600.00
Purchases, Raw Materials	75,000.00
Miscellaneous Factory Expenses	900.00

As the packing was done as a part of the manufacturing process, all of it was chargeable as one of the costs of production.

The units in the inventory of finished goods of January 1, 19A were valued at the $21.00 unit cost of production of the preceding year; they were all sold during 19A.

There were 8,400 finished units available for sale during the year. The unit selling price throughout 19A was $30.50. All the units returned by customers were produced during 19A and none of them was defective when returned.

Required:

a. A statement of the cost of goods manufactured and cost of goods sold for 19A.

b. Figures to show the determination of the value of the inventory of finished goods of December 31, 19A.

4. The Headley Company produces an efficient hedge cutter on which it pays a royalty of $.30 to the holder of the basic patent for each cutter manufactured. The following data were taken from the books and other records of the company for 19A:

	January 1, 19A	December 31, 19A
Inventory of Raw Materials..........	$20,000.00	$25,000.00
Inventory of Goods in Process........	11,000.00	5,000.00
Inventory of Finished Goods..........	25,000.00	?

The inventory of finished goods on hand January 1, 19A, totaled 5,000 units, all of which were sold during 19A.

Throughout 19A the selling price of each cutter was $9.00. All the units returned by customers were produced during 19A, and none of them was defective when returned.

The purchase discounts are to be treated as other income.

The cost of heat, light, and power is to be distributed 90 per cent to manufacturing, 5 per cent to trading, and 5 per cent to administration.

Depreciation of Plant and Machinery....	$ 12,800.00	Depreciation of Sales Equipment	$ 1,700.00
Repairs to Plant and Machinery.	5,200.00	Factory Mortgage Interest.............	4,100.00
Heat, Light, and Power	5,000.00	Salesmen's Expenses..	15,000.00
Purchases, Raw Materials............	159,800.00	Advertising..........	7,000.00
Plant and Machinery.	250,000.00	Sales................	414,000.00
		Sales Returns........	9,000.00
Depreciation of Office Equipment........	700.00	Direct Labor.........	74,000.00
		Sales Discounts......	2,000.00
Miscellaneous Factory Expenses..........	1,000.00	Purchase Discounts...	1,500.00
		Royalties............	15,000.00
Dividends—United States Steel Stock..	500.00	Transportation In....	1,200.00

Purchase Returns—Raw Materials	$ 1,000.00	Indirect Labor	$ 8,000.00
Miscellaneous Selling Expenses	1,000.00	Sales Salaries	38,000.00
Miscellaneous Administrative Expenses	1,500.00	Office Salaries	25,000.00
		Sales Supplies	3,300.00
		Office Supplies	2,000.00
		Factory Supplies	3,500.00

Required:

a. A statement of the cost of goods manufactured in the year 19A.

b. Computation of the value of the inventory of finished goods as of December 31, 19A.

c. A statement of profit and loss for 19A.

d. The adjusting journal entries for the ending inventories.

e. The closing journal entries.

f. Set up the Manufacturing, Trading, and Profit and Loss accounts and enter the adjusting and closing entries.

5. Prior to 19A, the Ronald Manufacturing Company produced two products, A and B. Because of a shortage of certain materials, product B was not manufactured during 19A. The following data were taken from the books and other records of the company at the end of 19A:

	On Hand January 1, 19A	Unit Selling Price During 19A	Inventory Value December 31, 19A
Product A	600 units	$35.00	?
Product B	1,000 units	15.00	$5,000.00

The 600 finished units of product A on hand at January 1, 19A, were all sold during the year. The 1,000 finished units of product B on hand at January 1, 19A, were valued at their $10.00 unit cost of production of the preceding year.

During 19A the company incurred royalty expense of $1.00 for each unit of A produced, and $2.00 for each unit of B sold. The royalties on units produced were treated as a cost of production, and the royalties on units sold were treated as a selling expense.

Inventory of Raw Materials, January 1, 19A	$ 15,000.00
Inventory of Raw Materials, December 31, 19A	10,000.00
Purchases, Raw Materials	134,000.00
Inventory of Goods in Process, January 1, 19A	16,000.00
Inventory of Goods in Process, December 31, 19A	12,000.00
Inventory of Finished Goods, January 1, 19A	23,800.00
Purchase Returns, Raw Materials	1,000.00
Cash Dividends—XYZ Company Stock	1,700.00
Royalties	16,000.00
Sales	529,000.00
Direct Labor	130,000.00

Administrative Expenses	$48,000.00
Selling Expenses	79,000.00
Manufacturing Expenses	71,000 00
Transportation In	2,000 00
Sales Discounts	4,800.00

Required:

a. A statement of the cost of goods manufactured in 19A.

b. Figures to show the determination of the total value of the inventories of finished goods as of December 31, 19A.

c. A statement of profit and loss for the year 19A.

6. The Kleansall Suction Cleaner Company produces and sells a machine that is superior for dusting, removing dirt from clothes, drapes, books, stuffed furniture, and other articles, as well as ridding the air of dust particles. The following facts were taken from the books and other records of the company for the calendar year 19A:

	January 1, 19A	December 31, 19A
Inventory of Raw Materials	$25,000.00	$15,000.00
Inventory of Goods in Process	0	8,500.00
Inventory of Finished Goods	27,734.00	?

The average unit cost of production for the year preceding 19A was $98.00. All the cleaners on hand on January 1, 19A, were sold during the year. There were 356 cleaners in the inventory of finished goods on December 31, 19A. There were 4,943 cleaners sold during 19A at $110.00 each.

Purchases, Raw Materials	$210,000.00	Direct Labor	$164,000 00
Manufacturing Expenses	90,000.00	Selling Expenses	50,000.00
Administrative Expenses	20,000.00	Purchase Discounts	1,200.00

The purchase discounts are to be treated as other income.

Required:

a. Figures to show the number of cleaners produced during 19A.

b. Figures to show the determination of the value of the inventory of finished goods as of December 31, 19A. Carry the unit cost of production for 19A to the fifth adjusted decimal.

c. A statement of profit and loss for the year supported by a schedule to show the cost of the goods produced.

d. The president says, "If I multiply the number of cleaners sold this year by the average manufacturing cost of a unit produced this year, the result does not agree with the cost of goods sold as shown by the statement of profit and loss." Present figures to explain the difference.

7. The trial balance that follows was taken from the books of The Northrop Manufacturing Corporation as of December 31, 19A:

THE NORTHROP MANUFACTURING CORPORATION

Trial Balance, December 31, 19A

Cash	$ 1,450.38	
Accounts Receivable	6,415.40	
Reserve for Bad Debts		$ 105.90
Notes Receivable	3,620.86	
Inventory—Finished Goods (January 1)	3,180.95	
Inventory—Work in Process (January 1)	9,468.73	
Inventory—Raw Materials (January 1)	1,792.24	
Land	3,250.00	
Buildings	18,590.40	
Factory Equipment and Tools	7,060.00	
Sales Equipment	1,580.96	
Office Equipment	2,708.28	
Reserve for Depreciation		2,757.88
Goodwill	10,000.00	
Accounts Payable		3,993.60
Notes Payable		2,100.00
Capital Stock		40,000.00
Surplus		3,288.99
Purchases—Raw Materials	33,598.19	
Transportation In	412.82	
Factory Supplies	410.64	
Direct Labor	17,661.57	
Insurance	462.53	
Heat, Light, and Power	2,268.20	
Indirect Labor	2,870.00	
Factory Repairs	345.73	
Miscellaneous Factory Expenses	458.27	
Sales		89,981.96
Allowances on Sales	946.27	
Traveling and Entertaining	1,218.90	
Advertising and Printing	680.60	
Commissions	3,136.87	
Office Salaries	1,920.00	
Officers' Salaries	5,200.00	
Postage	101.17	
Office Supplies	304.18	
Miscellaneous Office Expenses	223.25	
Interest Earned		104.60
Interest Expense	121.50	
Purchase Discounts		497.84
Sales Discounts	1,158.72	
Loss—Sale of Equipment	213.16	
	$142,830.77	$142,830.77

The adjusting data December 31, 19A were as follows:

a. Inventories:	
(1) Finished goods	$3,238.19
(2) Work in process	2,621.60
(3) Raw materials	1,098.23
(4) Factory supplies	62.00
b. Prepaid insurance	112.48
c. Accruals:	
(1) On notes receivable	18.28
(2) On notes payable	15.60
(3) On payroll:	
(*a*) Direct labor	190.70
(*b*) Heat, light, and power	16.35
(*c*) Indirect labor	38.25
d. Taxes were estimated to be:	
(1) On property	280.00
(2) Federal taxes	1,000.00
e. Depreciation:	
(1) Factory equipment and tools	693.24
(2) Office equipment	270.83
(3) Sales equipment	158.10
(4) Buildings	1,280.76
f. The reserve for bad debts was increased by	374.91

Distributions of certain expenses were made as follows:

	Manufacturing	Trading	Administration
Insurance	$ 245.05	$ 70.00	$ 35.00
Heat, light, and power	2,056.09	114.23	114.23
Taxes	196.00	56.00	28.00
Depreciation of buildings	1,024.60	128.08	128.08

Required:

a. A 12-column work sheet.

b. A properly classified balance sheet as of December 31, 19A.

c. A statement of profit and loss for the year supported by a schedule to show the cost of the goods produced and the cost of the goods sold.

d. The adjusting and the closing journal entries.

8. The following trial balance was taken from the books of the Roth Manufacturing Company as of December 31, 19A:

Cash	$ 15,335.00
Accounts Receivable	20,000.00
Inventory of Raw Materials, January 1, 19A	6,000.00
Inventory of Goods in Process, January 1, 19A	7,000.00

Inventory of Finished Goods, January 1, 19A	$ 5,000.00	
Prepaid Insurance	800.00	
Machinery	40,000 00	
Reserve for Depreciation of Machinery		$ 2,000 00
Small Tools	5,000 00	
Sales and Administrative Equipment	12,000 00	
Reserve for Depreciation of Sales and Administrative Equipment		800 00
Patents	10,000.00	
Accounts Payable		8,000 00
Capital Stock		80,000.00
Surplus		7,200.00
Sales		256,450 00
Sales Returns	2,000 00	
Purchases, Raw Materials	111,000 00	
Transportation In	3,000 00	
Purchase Returns and Allowances		1,000.00
Rent	7,000 00	
Heat, Light, and Power	5,000 00	
Direct Labor	48,000 00	
Indirect Labor	8,695.00	
Repairs to Machinery	320 00	
Factory Supplies	4,000.00	
Advertising	600 00	
Sales Salaries	28,000.00	
Sales Supplies	600 00	
Miscellaneous Selling Expenses	1,000 00	
Office Salaries	15,000 00	
Office Supplies	600 00	
Miscellaneous Administrative Expenses	900 00	
Purchase Discounts		1,400.00
	$356,850.00	$356,850.00

The following adjusting data must be considered as of December 31, 19A:

a. Inventories:

(1) Raw materials	$ 8,000 00
(2) Goods in process	10,000 00
(3) Finished goods	9,000 00

b. Depreciation of

(1) Machinery at the rate of 5 per cent per year.

(2) Sales and administrative equipment at the rate of 6⅔ per cent per year.

c. Small tools expense	$ 900 00
d. Patent expiration	1,000.00
e. Expired insurance	500 00
f. Accrued property taxes	420.00
g. Estimated federal taxes	6,000.00

Utilize the following distributions of expenses:

	Manufacturing, per cent	Trading, per cent	Administration, per cent
Rent	90	5	5
Heat, light, and power	92	4	4
Depreciation of sales and administrative equipment		70	30
Expired insurance	80	15	5
Property taxes	80	15	5

Required:

a. A 12-column work sheet.

b. The adjusting and closing journal entries.

c. A statement of profit and loss for the year supported by a schedule to show the cost of goods produced and the cost of goods sold.

d. A properly classified balance sheet.

e. A statement of earned and free surplus for the year.

Chapter XXIX. The Voucher System

1. The Chapman Manufacturing Company, which ordinarily pays all invoices and bills within the discount period, uses the Purchase Discounts column in the voucher register instead of in the check register.

Rule the voucher register with credit columns for Vouchers Payable and Purchase Discounts, and debit columns for Purchases of Raw Materials, and Sundries. Use only one money column in the check register captioned Amount. This column will serve for both the debits and credits. A standard two-column general journal is sufficient.

The following transactions are to afford practice in recording the failure to take discounts. Enter the following transactions:

July 1. Received raw materials from Fox Corporation, $4,000.00. Terms 2/10, n/30. Voucher 1.

3. Received raw materials from Solt Company, $3,000.00. Terms 2/10, n/30. Voucher 2.

4. Received raw materials from Gerwig Corporation, $2,000.00. Terms 1/10, n/30. Voucher 3.

5. Received raw materials from King Company, $1,000.00. Terms 2/10, n/30. Voucher 4.

8. Received a credit memorandum for $400.00 from King Company for defective materials that we returned. Do not prepare a new voucher. Draw neat lines through the figures of the original entry and insert the new figures immediately above.

11. The company was unable to take advantage of the discount offered by the Fox Corporation. Voucher 1 was canceled and voucher 5 was prepared. Record the cancellation of voucher 1 by red-ink inserts above the original black-ink figures. Record voucher 5 for $4,000.00.
13. We failed to take the discount on the Solt Company invoice. Record voucher 6 for $60.00.
14. We did not take the discount on the Gerwig Corporation invoice. Prepare an entry in the general journal to cancel voucher 3. Record voucher 7 for $2,000.00.
15. Sent a check to King Company for the net amount due. Check 1.
31. Made arrangements with the Fox Corporation for a change in the terms on the purchase of July 1; $3,000.00 cash was paid at once and a 30-day 6 per cent note for $1,000.00 was given for the balance. Do not prepare new vouchers. Record check 2. Record the note in the general journal. In the Paid column of the voucher register opposite voucher 5 record its settlement by check and by note.

Rule and total the voucher register and the check register. Set up the Vouchers Payable controlling account for July and insert the necessary figures. Rule and balance the account. Prove its balance by preparing a schedule of the unpaid vouchers as of July 31.

2. The Reed Manufacturing Company had a modern system of accounting that included a voucher system.

The voucher register contained credit columns for Vouchers Payable and Purchase Discounts; six debit columns for Purchases of Raw Materials, Direct Labor, Indirect Labor, Miscellaneous Factory Expenses, Sales Salaries, Office Salaries; and a Sundries section with both debit and credit columns.

The check register contained only one money column, which was captioned Amount. This column was both a debit and a credit column.

The general journal was a standard two-column journal.

Prepare the three journals, then enter the following transactions:

December 1. Purchased the finished-goods warehouse we had been renting from Ash and Lee. Paid $8,000.00 cash and gave a $12,000.00 90-day 5 per cent note for the balance. Voucher 1, check 1. Record the transaction exclusively in the voucher register and check register.

2. Received raw materials from Stone and Welsh, $1,200.00. Terms 2/10, n/30. Voucher 2.

3. Received a machine from Muldoon Machinery Company, delivered price $1,800.00. Gave a 20-day 6 per cent note to cover. Record the transaction exclusively in the general journal.

4. Received from the Davis Equipment Company two typewriters for use in the office, $280.00, terms on account. Voucher 3.
7. Sent a check for $495.00 to Beebe Corporation as partial payment for raw materials received today. The invoice was for $1,000.00. Terms 1 per cent on any portion of the invoice paid immediately, net 30 days. Vouchers 4 and 5, check 2.
8. Returned one of the typewriters purchased on December 4 from the Davis Equipment Company. Received a credit memorandum for $140.00. Use red-ink inserts above the figures of voucher 3.
9. Received $1,000.00 of raw materials from King Manufacturing Company. Terms 2/10, n/30. Voucher 6.
11. Paid Stone and Welsh in full. Check 3.
12. Received a credit memorandum for $200.00 from King Manufacturing Company for defective materials that we returned out of our purchase of December 9. Use red-ink inserts above the figures of voucher 6.
15. Paid the payroll for the first half of the month, as follows:

Direct Labor.	$2,500 00
Indirect Labor	600.00
Sales Salaries	500 00
Office Salaries	550 00
Voucher 7, check 4	$4,150.00

17. Sent a check to Davis Equipment Company in payment of voucher 3. Check 5.
18. Sent a check to King Manufacturing Company in full of account. Check 6.
19. Received raw materials from Sutton Company, $2,100.00. Terms 2/10, n/30. Voucher 8.
21. Received an invoice from *The News* for $10.00 for an advertisement for additional factory workmen. Voucher 9.
23. Sent our check to Muldoon Machinery Company to pay our note due today with interest. Voucher 10, check 7.
24. Gave a check for $9.00 to Everlasting Leather Company for new belting for one of the machines. Voucher 11, check 8.
25. Arranged with the Lorin Machinery Company to trade in a machine that had an original cost of $1,500.00 and a present book value of $700.00 for a new machine priced at $1,600.00. The allowance on the old machine was $600.00. The balance was paid in cash. Voucher 12, check 9.
27. Sent a check for $42.00 to O. R. Lowell, a customer, to cover an allowance on goods we sold him several days ago for cash. Voucher 13, check 10.
30. The Sutton Company invoice of December 19 was not paid within the discount period, which ended yesterday. Cancel voucher 8 by recording voucher 14 for $2,100.00.

31. Paid the payroll for the last half of the month, as follows:

Direct Labor	$2,800.00
Indirect Labor	650.00
Sales Salaries	500 00
Office Salaries	550.00
Voucher 15, check 11	$4,500 00

Reimbursed the petty cash fund with a check for $82.00. Postings have been made from the petty cash journal to the expense accounts. Voucher 16, check 12.
Received a telephone bill payable to Valley Telephone Company, $17.00. Voucher 17.

Rule and total the three journals. For the Purchases of Raw Materials column of the voucher register show a black-ink total and a red-ink total. The red-ink total would be posted to the Purchase Returns and Allowances account.
Set up the Vouchers Payable controlling account for December and insert the necessary figures. Rule and balance the account.
Prepare a schedule of the unpaid vouchers as of December 31 to support the balance of the controlling account.

3. The Wilson Manufacturing Company was organized March 1 to take over the partnership business of Wilson and Mason. The new company did not assume the liabilities of the partnership, so there were no accounts payable to be recorded.
For purposes of this problem set up a columnar general journal with three debit columns captioned Accounts Receivable, Vouchers Payable, General Ledger, and three credit columns similarly captioned. The voucher register and the check register are to be ruled and headed as indicated below:

VOUCHER REGISTER

Date	Payee	Voucher No.	Paid Date	Paid Check No.	Vouchers Payable Credit	Purchases Raw Materials	Transportation In

Direct Labor	Indirect Labor	Factory Supplies	Light, Heat, and Power	Miscellaneous Factory Expenses	Sales Salaries	Travel Expenses	Delivery Expenses	Advertising

March 19__

Packing Supplies	Trans-portation Out	Office Salaries	Office Supplies	Miscel-laneous Office Expenses	Sundries		
					Amount Debit	F	Account

CHECK REGISTER

March 19__

Date	Payee	Vouch-er No.	Check No.	Debit	Credit	
				Vouchers Payable	Purchase Discount	Cash

Record the following transactions:

March 1. Received raw materials from Willison Brothers, $1,910.00. Terms 2/10, n/30. Voucher 1.
Gave a check for $40.00 to the B. & O.R.R. to cover the freight on the above purchase. Voucher 2, check 1.

2. Received 40 tons of coal for factory use from Jenkins Company at $5.00 a ton delivered. Paid one-half the bill upon delivery, the balance to be paid in 30 days. Vouchers 3 and 4, check 2.

3. Received machinery lubricants, waste cloth, and other manufacturing supplies from Drew Company, $65.00. Terms net 30 days. Voucher 5.
Received a credit memorandum for $60.00 for materials returned to Willison Brothers. Use red-ink inserts above the figures of voucher 1.

4. Received a new machine from the Noble Machinery Company. Invoice price $900.00. Gave a 20-day 6 per cent note to cover the obligation.
Gave a check for $30.00 to the B. & O. R. R. to cover freight on the above machine. Voucher 6, check 3.

6. Sent a check for $380.00 to Ronald Company as partial payment of raw materials received today. The purchase amounted to $575.00. Terms, 5 per cent cash discount on any portion of the invoice paid immediately. Vouchers 7 and 8, check 4.

8. Gave Willison Brothers a check in full payment of voucher 1. Check 5.
Received $3,000.00 of raw materials from Simmons Corporation. Terms net 20 days. Voucher 9.
Issued a check for $50.00 to C. & P. R. R. for freight on the above raw materials. Voucher 10, check 6.

9. Received an invoice for $60.00 from *Modern Age* for advertising in the March issue. Voucher 11.
   Received raw materials from Tone Company, $450.00. Terms net 30 days. Voucher 12.
10. Received packing supplies for use in the sales division from Drury Brothers, $90.00. Terms net 30 days. Voucher 13.
13. Issued a check for $20.00 to Johnson and Lee in payment of repairs and adjustments made to the mechanical equipment in the office. Voucher 14, check 7.
14. Received a new typewriter for the office $130.00, and office supplies $29.00, from Held Office Equipment Company. Terms net 30 days. Voucher 15.
16. Purchased a tire and tube for one of the delivery trucks from Gunther Garage, $27.00. Terms on account. Voucher 16.
17. Tone Company, having purchased $100.00 of goods from us on account late in February, suggested that we offset this $100.00 against the $450.00 we owed them. We issued check 8 for the balance. Prepare a general journal entry for $100.00 to offset the accounts, and record check 8. Do not prepare a new voucher. Show full information in the Paid column of the voucher register for voucher 12.
19. Sent a check to Jenkins Company in full of account. Check 9.
20. Reimbursed James Long, our salesman, for traveling expenses, $114.00. Voucher 17, check 10.
24. Gave Lang Parts Company $35.00 for small repair parts for the machinery. Voucher 18, check 11.
   Paid the note given to Noble Machinery Company on March 4, with interest. Voucher 19, check 12.
26. Sent a check to Rice Brothers for $45.00 for an allowance on goods we sold them several days ago for cash. Voucher 20, check 13.
27. Gave a $60.00 check to Hugh Duncan, our customer. Duncan had overpaid his account. Voucher 21, check 14.
   Gave a check for $15.00 to the B. & O.R.R. to cover the freight on goods sold to Thomas Company. Voucher 22, check 15.
28. Gave a 30-day 6 per cent note to Simmons Corporation to cover our purchase of March 8.
   Issued a check to Drew Company in full of account. Check 16.
31. Received a bill for $310.00 from Potomac Power and Light Company. Voucher 23.
   Received a bill for $51.00 from Gulf Oil Company for gas and oil used in the delivery trucks. Voucher 24.
   Paid the payroll for March, as follows:

Direct Labor	$4,000.00
Indirect Labor	700 00
Sales Salaries	800.00
Delivery Salaries	250.00
Office Salaries	745.00
Voucher 25, check 17	**$6,495.00**

Reimbursed the petty cash fund for the following disbursements made during March. The imprest system of petty cash was used.

Miscellaneous Office Expenses. . . .	$14.00
Postage.	32.00
Delivery Expenses.	9.00
Miscellaneous Factory Expenses.	11.00
Voucher 26, check 18.	$66.00

Rule and total each journal.

Set up the Vouchers Payable controlling account for March and insert the necessary figures. Rule and balance the account.

Prove the balance of the controlling account by preparing a schedule of unpaid vouchers as of March 31.

PRACTICE SET 3-A

Steel City Foundry Problem with a Voucher System

The Steel City Foundry is a partnership business that manufactures and sells metal castings. Its accounting system includes a petty cash book and the following books of original entry: general journal, cash receipts journal, check register, voucher register, and sales journal. Two ledgers are operated—a general ledger and a subsidiary ledger for accounts receivable.

The necessary blank books and papers for this problem may be obtained from the publishers of this text—Practice Set 3.

In the solution of this problem it will be found helpful if the following general instructions are observed:

1. When in doubt as to the proper procedure consult your instructor.
2. The solution should be in ink. Neat work is required.
3. Rulings should be made with ink with a ruler.
4. All payments by check should be entered in the check register, while payments in actual money should be entered in the petty cash book.
5. As much current posting as possible should be done as the work progresses.

Prepare the petty cash book and the books of original entry with column headings as indicated below:

GENERAL JOURNAL — January 19 A

Debit					Credit	
Accounts Receivable	General Ledger	F	Date Debit and Credit Accounts Explanation	F	General Ledger	Accounts Receivable

PETTY CASH BOOK — January 19 A

Receipts				Credit	Debit			Sundry Debits		
Date	Amount	Date	Explanation	Petty Cash	Office Supplies and Expenses	Factory Expense	Advertising	Amount	F	Account

CASH RECEIPTS JOURNAL

January 19 A

Date	Account	Explanation	F	Credit		Debit	
				General Ledger	Accounts Receivable	Sales Discount	Cash

CHECK REGISTER

January 19 A

Date	Payee	Voucher No.	Check No.	Debit	Credit	
				Vouchers Payable	Discounts Earned	Cash

VOUCHER REGISTER

Date	Payee	Voucher No.	Paid		Credit			
			Date	Check No.	Vouchers Payable	Purchases New Metals	Purchases Metal Scrap	Factory Supplies

January 19 A

Debit									
Heat, Light, and Power	Charcoal	Freight In	Payroll	Auto Expense	Advertising	Office Supplies and Expenses	Sundries		
							Amount	F	Account

SALES JOURNAL

Date	Account	Terms	F	Sales Invoice No.	Debit			
					Accounts Receivable	Sales Nickel Castings 18 Per Cent	Sales Nickel Castings 10 Per Cent	Sales Brass Castings 60-40

January 19 A

Credit					
			Sundries		
Sales Brass Castings 70-30	Sales Bronze Castings S.C. Phosphor	Sales Bronze Castings Special	Amount	F	Account

A knowledge of the account classification and the items included under certain of the accounts is desirable before any of the entries are made.

Classification of Accounts
Assets and Liabilities

Cash
Petty Cash
Accounts Receivable
Reserve for Bad Debts
Notes Receivable
Notes Receivable Discounted
Inventory of Metals
Inventory of Finished Goods
Griscom Consignment 1
Inventory of Supplies
Prepaid Auto Insurance
Prepaid General Insurance
Prepaid Advertising
Land
Buildings
Reserve for Depreciation of Buildings
Machinery and Equipment
Reserve for Depreciation of Machinery and Equipment
Tools
Crucibles
Furniture and Fixtures
Reserve for Depreciation of Furniture and Fixtures
Auto Trucks
Reserve for Depreciation of Auto Trucks
Investments
Vouchers Payable
Notes Payable
Accrued Interest Payable
Accrued Payroll
Reserve for Taxes
Mortgage Payable
Paul Powers, Capital
Paul Powers, Personal
G. A. Sanford, Capital
M. R. Wilson, Capital
M. R. Wilson, Personal

Income

Sales—Nickel Castings 18 per cent
Sales—Nickel Castings 10 per cent
Sales—Brass Castings 60-40
Sales—Brass Castings 70-30
Sales—Bronze Castings, Steel City Phosphor
Sales—Bronze Castings—Special
Interest Earned
Commissions Earned
Discounts Earned

Expenses

Metal Scrap
New Metals
  Including copper, zinc, nickel, tin, and phosphorus
Melters
Molders
Helpers
Fire Builders
Coke Wheelers
Laborers
Weighers
Foremen
Charcoal
Heat, Light, and Power
  Including coke, electricity, gas, and fuel oil
Crucibles Used
Freight In
Cabbaging Scrap
Factory Supplies
  Including laboratory supplies, flake graphite, round iron, foundry sand, core sand, core compound, gloves, etc.
Factory Expense
  Including cleaning, wages of storekeepers, advertising for factory employees, freight on returned sales due to faulty production
Property Taxes
Repairs to Buildings
Repairs to Machinery
Insurance on Plant
Depreciation of Buildings
Depreciation of Tools
Depreciation of Machinery and Equipment
Payroll
  This account is debited with the total of each payroll and closed at the end of the month by an entry to distribute its balance.
Auto Expense
  Including insurance, gas, and oil
Advertising
Sales Expense
Wages of Truck Drivers
Returned Sales—Nickel Castings 18 per cent
Depreciation of Auto Trucks
Depreciation of Furniture and Fixtures
Dues and Subscriptions
Office Salaries
  Including bookkeepers, stenographers, and timekeeper
Salaries of Partners
Office Supplies and Expenses
  Including stationery and printing, carfare, telephone and telegraph, and postage (except parcel post)
Bad Debts
Miscellaneous Expenses
Sales Discount
Interest Expense
Interest on Mortgage
Interest on Partners' Capital
Manufacturing
Trading
Profit and Loss

January 1, 19A

G. A. Sanford, M. R. Wilson, and Paul Powers, all of Pittsburgh, Pa., formed a partnership for the purpose of conducting a business to produce and sell metal castings.

Articles of Copartnership were prepared and signed. Among other provisions the agreement stipulated that:

1. G. A. Sanford was to contribute $100,000.00 cash.
2. M. R. Wilson was to invest $100,000.00 cash.
3. Paul Powers was to invest $150,000.00 and was to make payment by transferring to the partnership his equity in the assets of a metal foundry of which he was the sole owner. The assets of the Powers foundry were appraised by the partners at a total value of $202,000.00 and were accepted by the partners subject to existing liabilities of $52,000.00. The appraised values assigned to each class of assets acquired from Powers and the liabilities assumed were shown by the following statement:

PAUL POWERS

BALANCE SHEET, JANUARY 1, 19A

Assets		Liabilities	
Accounts Receivable..	$ 12,000.00	Accounts Payable....	$ 2,000.00
Land................	60,000.00	Mortgage Payable....	50,000.00
Buildings............	80,000.00	Paul Powers, Capital.	150,000.00
Machinery and Equipment..............	30,000.00		
Tools................	16,000.00		
Furniture and Fixtures	4,000.00		
	$202,000.00		$202,000.00

Accounts Receivable		Accounts Payable	
Powell-Cloud Tool Company...........	$ 7,000.00	Pittsburgh Clean Towel Company............	$ 10.00
I O. Acton Company..	5,000.00	Quinton Copper Company................	1,480.00
	$12,000.00	Internat'l Chemical Products Company... .. .	510.00
			$2,000.00

The $50,000.00 mortgage on the Powers land and buildings carried interest at the rate of 6 per cent per year payable semiannually on January 1 and July 1. The six months' interest due on January 1, 19A, had been paid by Powers.

4. Each partner was to be paid a weekly salary of $100.00 from January 5, 19A.
5. Each partner was to be allowed interest at the rate of 6 per cent per

year on the amount of his capital at the beginning of each annual fiscal period.

6. Residual profits and losses were to be shared equally.

The partners agreed further that G. A. Sanford was to have charge of sales; M. R. Wilson was to supervise purchases and all accounting; Paul Powers, because of his past experience, was to act as factory manager.

The partnership of Sanford, Wilson, and Powers was to be known as the Steel City Foundry. Nickel, brass, and bronze castings were to be manufactured according to patterns furnished by customers. The formulas for these castings were:

18 Per Cent Nickel	10 Per Cent Nickel	70-30 Brass
62 lb. Copper	62 lb. Copper	70 lb. Copper
18 lb. Nickel	10 lb. Nickel	30 lb. Zinc
20 lb. Zinc	28 lb. Zinc	100 lb.
100 lb.	100 lb.	

60-40 Brass	Steel City Bronze	Special Bronze
60 lb. Copper	94 lb. Copper	Made to customer's formula
40 lb. Zinc	5 lb. Tin	
100 lb.	1 lb. Phosphorus	
	100 lb.	

Production Process Briefly Described

The foundry was located on a siding of the Pennsylvania Railroad Company. New metals were received usually in carload lots and were unloaded by laborers, weighed, and stored in lots of 200 ingots. Scrap metal was weighed, then compressed or "cabbaged," and stored.

Early each day a firebuilder started operations by building up the fires in the pits. Metals required for a melt were weighed and placed in a crucible. When the melt was completed the crucible was lifted by an overhead crane and poured into prepared molds. After the castings were cooled, they were removed from the sandbox and taken to the cleaning room where the gates were removed and the castings cleaned of sand. Scrap was returned to the storeroom and the completed castings placed in the shipping room pending delivery to the customer.

Personnel

Individuals were engaged to begin work Monday, January 5, for the following positions:

2 bookkeepers, one @ $40.00 and one @ $30.00 a week.

2 storekeepers, one @ $35.00 and one @ $25.00 a week. These men were to act as receiving clerks as well as storekeepers.

2 stenographers @ $20.00 a week each.
1 timekeeper @ $25.00 a week.

Individuals were engaged to begin work Wednesday, January 7, as follows:

14 laborers @ $.50 an hour.

Individuals were engaged to begin work Monday, January 12, as follows:

15 men to cabbage scrap @ $.45 an hour.
5 coke wheelers @ $.40 an hour.
2 fire builders @ $.50 an hour.
15 weighers @ $.60 an hour.
20 melters @ $.65 an hour.
60 helpers @ $.45 an hour.
20 molders @ $.75 an hour.
2 foremen @ $62.00 a week.

Accounting for Payroll

Arrangements were made with all employees to pay them each Saturday for their services up to and including the preceding Saturday. In other words, the accounting department was allowed one week to check timecards and make up the payroll.

The working week was six days, eight hours a day.

In order to summarize the detailed wage and salary records for weekly payroll purposes, the following payroll distribution sheet was used:

PAYROLL DISTRIBUTION SHEET

Account	January 17 As of January 10	January 24 As of January 17	January 31 As of January 24	Total
Cabbaging Scrap				
Coke Wheelers				
Factory Expense				
Fire Builders				
Foremen				
Helpers				
Laborers				
Melters				
Molders				
Office Salaries				
Salaries of Partners				
Wages—Truck Drivers				
Weighers				
Weekly Total				

January 3, 19A

Mr. Wilson informed the other partners that orders had been placed with various concerns for the following materials:

Connelsville foundry coke, 400 tons @ \$4.50 a ton.
B. B. 1 crucibles, 800 @ \$8.75 each.
Foundry sand, 40 barrels @ \$2.50 a barrel.
Foundry core sand, 4 barrels @ \$3.25 a barrel.
Charcoal, 200 bushels @ \$.10 a bushel.
Core compound, 10 gallons @ \$.50 a gallon.
Flake graphite, 100 pounds @ \$.10 a pound.
Leather gloves, 200 pairs @ \$.75 a pair.
Round iron for pokers, skinners, etc., 100 pounds @ \$.08 a pound.
Lake copper, 1,000,000 pounds @ \$.12¾ a pound.
Horsehead zinc, 200,000 pounds @ \$.08 a pound.
Grain nickel, 10,000 pounds @ \$.40 a pound.
Banca tin, 40,000 pounds @ \$.30 a pound.
Phosphorus, 4,000 pounds @ \$.36 a pound.
18 per cent nickel scrap, 40,000 pounds @ \$.12 a pound.
Phosphor bronze scrap, 40,000 pounds @ \$.11 a pound.
70-30 brass scrap, 200,000 pounds @ \$.06 a pound.

January 5, 19A

INSTRUCTIONS TO THE STUDENT

1. Record as of January 1 the cash investment of \$100,000.00 by partner G. A. Sanford.
2. Record as of January 1 the cash investment of \$100,000.00 by partner M. R. Wilson.
3. Record as of January 1 the investment by partner Paul Powers of his equity in the assets of his former business. The partnership took over all the assets of the Paul Powers Foundry, assumed its debts and gave Powers credit for an investment of \$150,000.00. Vouchers 1, 2, and 3 were prepared and recorded in the voucher register for the three accounts payable of the Paul Powers Foundry assumed by the new firm. Since the debits to the three accounts payable in the sundries section of the voucher register offset the three credits to the same accounts in the general ledger column of the general journal, it is not necessary to open accounts in the general ledger with these three creditors. The debits to the creditors in the voucher register and the credits to them in the general journal should be checked in the folio columns to indicate they are not to be posted. It is not necessary to prepare a voucher for the mortgage that was assumed. That liability will not be vouchered until it matures and is to be paid.

4. The student should now proceed to record the other transactions of the Steel City Foundry and to make the current postings.
   As materials are reported to have been received, the item should be checked against the materials ordered on January 3 by partner M. R. Wilson so that the price may be determined, the amount calculated, and the proper entry made in the voucher register.

All individuals engaged to begin work today did so.

Various ruled books for the accounting records were purchased from the Spark's Stationery Store, $100.00. Terms 30 days net. Voucher 4. (Office Supplies and Expenses.)

The storekeeper reported the receipt of 200 pairs of gloves from the Lawson Leather Glove Company. Terms 2/10, n/30. Voucher 5.

Drew a check for $200.00 for petty cash purposes. Voucher 6, check 1.

Purchased postage stamps from petty cash, $20.00.

The Sunbeam Publishing Company delivered letterheads, billheads, and office stationery, $130.00. Terms on account. Voucher 7.

January 6, 19A

Received 100 pounds of round iron from the Mitchell-Meyer Company. Terms 1/10, n/30. Voucher 8.

Albert Baner and Company delivered 100 pounds of flake graphite. Terms on account. Voucher 9.

The Pittsburgh Clean Towel Company sent a collector to the office and $10.00 was given him from petty cash in payment of voucher 1.

January 7, 19A

The laborers who were to report for work today did so.

Received 400,000 pounds of copper from the Quinton Copper Company Attached to the bill of lading was a 30-day trade acceptance that was signed and returned. Voucher 10.

Received 100,000 pounds of horsehead zinc from the Zaiser Zinc Company. Terms on account. Voucher 11.

The American Nickel Company delivered 10 barrels of grain nickel, 1,000 pounds net to the barrel. Terms on account. Voucher 12.

A check was given to the Pennsylvania Railroad Company for $291.00 for freight on all metal received today. Voucher 13, check 2.

January 8, 19A

Received 44,000 pounds of banca tin from Weigel Brothers. Only 40,000 pounds were ordered but the extra 4,000 pounds were kept at the same unit price. Terms on account. Voucher 14.

Received 4,000 pounds of stick phosphorus from the International Chemical Products Company. Terms on account. Voucher 15.

Paid $35.00 to the Pennsylvania Railroad Company for freight on goods received today. Voucher 16, check 3.

January 9, 19A

Received 40,000 pounds of phosphor bronze scrap from T. B. R. Pancoast and Sons. Terms on account. Voucher 17.

Received 40,000 pounds of 18 per cent nickel scrap from the La Barr Machinery Corporation. Terms on account. Voucher 18.

Received 430 tons of foundry coke from the Carney Coke Company. All of it was kept at the same unit price although the quantity delivered exceeded the quantity ordered. Terms on account. Voucher 19.

Paid $555.00 to the Pennsylvania Railroad Company for freight on metals received today. Voucher 20, check 4.

January 10, 19A

Received 200,000 pounds of 70-30 brass scrap from the La Barr Machinery Corporation. Terms on account. Voucher 21.

Paid $129.00 to the Pennsylvania Railroad Company for freight on the material received from the La Barr Machinery Corporation. Voucher 22, check 5.

Received foundry sand and foundry core sand as ordered on January 3 from the Salem Sand Company. Voucher 23.

Ernest Brothers delivered 200 bushels of charcoal. Terms 2/10, n/30. Voucher 24.

Paid $10.00 from petty cash to the *Post Gazette* for running "Help Wanted" notices for factory employees.

January 12, 19A

All individuals hired to begin work today did so.

The Crafton Crucible Company delivered 800 crucibles to the storeroom, and 10 gallons of core compound. Terms on account. Voucher 25.

Received a check for $5,000.00 from I. O. Acton Company.

Paid $20.00 from petty cash for cleaning the factory.

January 13, 19A

There was need for some 10 per cent nickel scrap, so 10,000 pounds of 18 per cent nickel scrap were reduced to a 10 per cent basis by the addition of the necessary new metals. There was also a need for some 60-40 brass, so 80,000 pounds of 70-30 brass were reduced to a 60-40 basis by the addition of the necessary new metals.

NOTE: These reductions do not require any entries on the books of this practice set. Reductions of this character require requisitions to be drawn on the storeroom for new metals. Your instructor may request that you calculate the minimum amount of new metals which would have to be withdrawn from the storeroom to accomplish these two reductions.

Purchased 2 automobile trucks from the Independent Truck Agency at a total cost of $7,287.34. Terms on account. Voucher 26.

A calculating machine and an adding machine were purchased from the Dalton Company at a total cost of $700.00. Terms 2/10, n/30. Voucher 27.

Two automobile truck drivers were engaged at $25.00 a week and began work today.

The check received on January 12 from I. O. Acton Company was returned by the bank marked N.S.F. Protest fees were $5.00. Gave a check for the total amount to the Forbes National Bank. Voucher 28, check 6.

January 14, 19A

Sold and shipped to the La Barr Machinery Corporation, terms 2/10, n/30, f.o.b. foundry:

40,000 pounds of nickel castings 18 per cent @ $.25	$10,000.00
30,000 pounds of nickel castings 10 per cent @ $.22	6,600.00
	$16,600.00

Mailed a check for $60.00 to the Department of Revenue at Harrisburg, Pa., for the automobile truck licenses. Voucher 29, check 7.

Received a check for $7,000.00 from the Powell-Cloud Tool Company.

January 15, 19A

Received 600,000 pounds of copper from the Quinton Copper Company. Terms on account. Voucher 30.

Paid $364.00 to the Pennsylvania Railroad Company for freight on metal received today. Voucher 31, check 8.

Gave a check for $1,200.00 to the Modern Advertising Company for advertisements to appear in various trade magazines prior to April 1, 19A. Voucher 32, check 9.

Paid Lawson Leather Glove Company's invoice of January 5, less the discount. Check 10.

January 16, 19A

Purchased 9,000 gallons of fuel oil from the Purol Refining Company at $.06 a gallon. Terms on account. Voucher 33.

Paid $10.00 from the petty cash drawer for ice and water for the office.

Paid the Richards Repair Shop $300.00 for repairs to machinery. Voucher 34, check 11.

Paid $25.00 from petty cash for lettering the name of the firm on the two automobile trucks. (Charge Advertising.)

The Mitchell-Meyer Company's invoice of January 6 was paid less the discount. Check 12.

A letter from the I. O. Acton Company was received. It stated that the check of January 12 had been drawn on the wrong bank. A check for $5,005.00 was enclosed.

January 17, 19A

Received 100,000 pounds of zinc from the Zaiser Zinc Company. Terms on account. Voucher 35.

Paid the payroll as of January 10; all individuals engaged to report for work did so on the dates set and earned full pay from those dates to the end of the week. The student must calculate this and all subsequent payrolls. A payroll distribution sheet should be prepared to conform with the illustration given previously in this problem. On this sheet the distribution of this and each subsequent payroll should be entered. At the end of the month the payroll distribution sheet will furnish the necessary information for the distribution of the Payroll account. It is suggested that the Classification of Accounts section be studied again to note the proper accounts to be charged for the various wage and salary payments.

At this time charge Payroll in the voucher register for the total of the wages and salaries paid. Voucher 36, check 13.

The following checks were mailed:

Quinton Copper Company for voucher 2..............................	$1,480.00.	Check 14.
International Chemical Products Company for voucher 3..........	510.00.	Check 15.

Sent a 30-day 6 per cent note to the Quinton Copper Company for the purchase of January 15.

January 19, 19A

Sold E. M. Patterson, terms 30 days net:

20,000 pounds of brass castings 70-30 @ $.20....	$4,000.00
20,000 pounds of brass castings 60-40 @ $.19....	3,800.00
	$7,800.00

Paid $20.00 from petty cash for miscellaneous office expenses.

Sold some 60-40 brass castings to a stranger for $80.00 cash. The castings were loaded on the stranger's truck. A $100.00 bill was tendered in payment. The stranger was given $20.00 from the petty cash drawer. The $100.00 bill was changed at the bank, $80.00 was deposited, and $20.00 was returned to the petty cash drawer. A memorandum was kept in the drawer until the $20.00 was returned. (Charge Cash Sales account in the accounts receivable subsidiary ledger. Do not make an entry in the petty cash book.)

January 20, 19A

The Forbes National Bank discovered that the $100.00 bill we gave it yesterday was a counterfeit so a check was given to the bank for $100.00. Voucher 37, check 16.

Purchased 10,000 pounds of nickel from the American Nickel Company at $.39 a pound. Terms on account. Voucher 38.

Sent a check for $150.00 to the Bailey-Banks Company for laboratory supplies delivered today. Voucher 39, check 17.

Mailed a check to Ernest Brothers for $19.60 in payment of voucher 24. Check 18.

January 21, 19A

Received 20,000 pounds of 70-30 brass castings from the Griscom Foundry of Uniontown, Pa. These castings were shipped to us to be sold for the account of the shipper. (As we are acting as agents and these castings belong to the Griscom Foundry, an entry is not necessary.)

Six helpers spent 5 hours cleaning the Griscom Foundry castings to prepare them for sale. (Charge Griscom Consignment 1 and credit Helpers account.)

January 22, 19A

Our trucks delivered to West and West 100,000 pounds of bronze castings—special which were sold to them at $.24 a pound on account.

Paul Powers's daughter Helen was in college. The bookkeeper was instructed to send her a check for $100.00; this was done. Voucher 40, check 19.

A check was mailed to the Dalton Company to cover its invoice of January 13, less the discount. Check 20. (This transaction includes discount on the purchase of a fixed asset. Treat the discount as a reduction of the cost of the asset by a general journal entry that debits Vouchers Payable and credits Furniture and Fixtures.)

January 23, 19A

Sent a check for $8.00 to the F. D. Tyler Agency for subscriptions to the *Journal of Accountancy* and *Factory Management*. Voucher 41, check 21.

Purchased through Kuhn, Loeb and Company for cash 1,000 shares of Morton Machine Corporation stock at 102 (par $100.00). The broker's commission, which we paid, was 15 cents a share. This stock was acquired in order to control the purchases of this corporation and thus create an additional market for Steel City castings. Voucher 42, check 22.

Paid $100.00 by check to the Pennsylvania Railroad Company for freight on the shipment from the Griscom Foundry. (Charge Griscom Consignment 1.) Voucher 43, check 23.

January 24, 19A

Sold Watt Brothers 60,000 pounds of Steel City phosphor bronze castings at $.27 a pound. Terms 2/10, n/30, f.o.b. Pittsburgh.

Payroll was paid for the week ending January 17; all employees worked the full week except the truck drivers. Voucher 44, check 24.

The La Barr Machinery Corporation wrote that 10,000 pounds of 18 per cent nickel castings sold them on January 14 were defective and

requested advice as to the disposition of the castings. A check was enclosed for the balance due on the sale of January 14, less 2 per cent discount. We requested them to return the defective castings. (Note the return on January 27.)

January 26, 19A

Hiram Brown, carpenter, sent us a bill for alterations to the storeroom. Amount $550.00. (Charge Repairs to Buildings.) Terms 30 days net. Voucher 45.

The bookkeeper drew a $200.00 check payable to M. R. Wilson as a withdrawal for his personal needs. Voucher 46, check 25.

Received a 30-day 6 per cent note dated January 24 from West and West for their purchase of January 22.

January 27, 19A

Our trucks delivered to the Scott Statue Company 10,000 pounds of special bronze castings which we sold them at $.24 a pound. Terms 2/10, n/30.

The La Barr Machinery Corporation returned the 10,000 pounds of defective 18 per cent nickel castings about which we were advised on January 24. Credit was allowed at $.25 a pound. Credit was also allowed the La Barr Machinery Corporation for $70.00 freight charges prepaid by them. (See Factory Expense in the Classification of Accounts.)

The note of West and West received on January 26 was discounted at the Forbes National Bank. Rate of discount 6 per cent.

January 28, 19A

The Protecto Insurance Agency sent us a bill as follows:

Fire insurance on plant and equipment..........	$ 713.50
Auto insurance covering fire, theft, personal liability, collision, and property damage............	493.40
Voucher 47................................	$1,206.90

Paid $3.50 from petty cash for telegrams and carfare.

Gave G. A. Sanford a check for $352.50 to cover expenses that he incurred in obtaining orders. Voucher 48, check 26.

The following vouchers were paid by check:

Spark's Stationery Store............	$ 100.00.	Check 27.
Albert Baner and Company.........	10.00.	Check 28.
Sunbeam Publishing Company......	130.00.	Check 29.
Zaiser Zinc Company for voucher 11	8,000.00.	Check 30.
American Nickel Company for voucher 12.....	4,000.00.	Check 31.

January 29, 19A

Sold the Carnegie Metal Works, terms 30 days net:

140,000 pounds of Steel City phosphor bronze @ $.27	$37,800.00
100,000 pounds of special bronze @ $.24	24,000.00
	$61,800.00

The Griscom Foundry castings were sold to the La Barr Machinery Corporation at $.18 a pound. Terms 30 days net, f.o.b. our foundry. (Credit Griscom Consignment 1 account.)

The Griscom Consignment 1 account was charged with 6 per cent of the sales price as our commission for handling the consignment.

A statement was sent to the Griscom Foundry to account for our handling of its consignment. The balance due on this consignment was owed to the Griscom Foundry and was vouchered. Voucher 49.

January 30, 19A

Sold 160,000 pounds of 70-30 brass castings at $.20 a pound to the Butler Brass Company. Terms f.o.b. our factory, 30 days net.

E. M. Patterson sent us a check for $7,798.00 on account of his purchase on January 19.

January 31, 19A

Paid payroll the same as on January 24, except that the truck drivers were paid for a full week, while the amount paid to helpers declined to $1,215.00 because of the absence from work of some of the helpers. Voucher 50, check 32.

Sold the Federal Machine Makers 200,000 pounds of 60-40 brass castings at $.19 a pound, f.o.b. our factory. Terms 30 days net.

The Scott Statue Company sent us a check for its purchase of January 27, less the discount.

The La Barr Machinery Corporation was both a creditor and a debtor of ours. Sent it a check for the net difference due. Voucher 51, check 33.

Sold the Morton Machine Corporation f.o.b. our factory, terms 30 days net:

100,000 pounds of Steel City phosphor bronze @ $.27	$27,000 00
30,000 pounds of 18 per cent nickel castings @ $.25	7,500.00
30,000 pounds of 10 per cent nickel castings @ $.22	6,600 00
	$41,100 00

E. M. Patterson discovered his error in the remittance of January 30. He stated that a $2.00 credit memorandum of another firm had been

debited to our account by mistake. He sent us $2.00 in stamps to take care of the balance due. (Buy the postage from petty cash and credit Patterson in the cash receipts journal.)

Checks were drawn for the following bills:

Public Electric Company for electricity	$90.00.	Voucher 52, check 34.
Natural Ice Company for ice used in the office	3.00.	Voucher 53, check 35.
Pittsburgh Clean Towel Company for office towels used	5.00.	Voucher 54, check 36.
American Telephone and Telegraph Company for telephone service	12.00.	Voucher 55, check 37.
Peoples Natural Gas Company for gas used	63.40.	Voucher 56, check 38.

The Ryan Auto Supply Company sent us a bill for $129.14 for oil, gasoline, etc., for the auto trucks. Voucher 57.

Reimbursed petty cash by the imprest system. Voucher 58, check 39.

Distributed Payroll to the various accounts that were to be charged for wage and salary payments. This information was shown on the payroll distribution sheet.

Instructions to the Student

1. Complete all current postings.
2. Total and rule all original entry books and the petty cash book.
3. Make all postings necessary at the end of the month.
4. Prepare a trial balance of the general ledger in the first two columns of a twelve-column work sheet.
5. Prepare a schedule of the accounts receivable ledger to support the trial balance figure for the Accounts Receivable controlling account.
6. Prepare a schedule of unpaid vouchers to support the trial balance figure for Vouchers Payable.
7. Complete the twelve-column work sheet using, in addition to the trial balance columns, both debit and credit columns under the following headings:

Adjustments, Manufacturing, Trading, Profit and Loss, and Balance Sheet.

Treat all costs of operating the automobile trucks as debits to Trading.

Consider Commissions Earned as other income—a credit to Profit and Loss.

Supplementary Data

The supplementary data to be considered with the trial balance for the purpose of completing the work sheet and adjusting the books follow

Inventories, January 31, 19A

Copper, 74,000 pounds @ $.12\frac{3}{4}$	$9,435.00
Nickel, 6,200 pounds @ .40	2,480.00
Tin, 15,660 pounds @ .30	4,698.00
Zinc, 21,300 pounds @ .08	1,704.00
Brass scrap 70-30, 43,000 pounds @ .06	2,580.00
Brass scrap 60-40, 5,200 pounds @ .05	260.00
Nickel scrap 10%, 2,000 pounds @ .10	200.00
Nickel scrap 18%, 11,875 pounds @ .12	1,425.00
Bronze scrap, 7,500 pounds @ .11	825.00
Phosphorus, 1,300 pounds @ .36	468.00
Coke, 80 tons @ 4.50	360.00
Fuel oil, 1,000 gallons @ .06	60.00
Crucibles—new and used	6,000.00
Auto supplies	16.64
Stationery and printing	6.30

Certain factory and laboratory supplies were considered to have no value and were not inventoried.

Goods in Process. There was no inventory of goods in process on January 31, 19A.

Finished Goods. On January 31, there were on hand some completed castings that had not been shipped because they were only parts of uncompleted orders. These castings calculated at cost were

Phosphor bronze, 60,000 pounds @ $.17	$10,200.00
Special bronze, 100,000 pounds @ .175	17,500.00
60-40 brass, 100,000 pounds @ .14	14,000.00
70-30 brass, 100,000 pounds @ .15	15,000.00
Total	$56,700.00

Accrued and Prepaid Items, January 31, 19A

Accrued payroll for the week ending January 31 was exactly the same as the payroll paid on January 31 for the week ended January 24.

Insurance:

The cost of fire insurance applicable to January was	$ 59.46
The cost of auto truck insurance applicable to January was	41.12
Advertising prepaid on January 31 was	816.67
Accrued interest on the mortgage was	250.00
Accrued interest on notes payable was	178.50

Depreciation for January

Depreciation rates per annum (figure $\frac{1}{12}$ for January)

Machinery and Equipment	12 per cent
Auto Truck	15 per cent
Furniture and Fixtures	6 per cent
Buildings	2 per cent

Tools should be written down $200.00.

Bad Debts and Taxes for January

A reserve for bad debts should be provided to the extent of 1 per cent of accounts receivable.

A reserve for property taxes should be provided to the extent of $172.00.

Interest on Partners' Capitals

Interest on partners' capitals for the month of January should be recorded.

Additional Instructions to the Student

1. Prepare a statement of profit and loss for the Steel City Foundry for the month of January 19A.
2. Support the statement of profit and loss with the following schedules:
   a. Cost of goods manufactured and cost of goods sold.
   Arbitrarily consider that direct labor cost includes Melters, Molders, Helpers, Weighers, and Cabbaging Scrap. Treat the accounts Fire Builders, Coke Wheelers, Laborers, and Foremen as manufacturing expenses without attempting to set up an indirect labor figure.
   b. Selling expenses.
   c. General and administrative expenses.
3. Prepare a balance sheet of the Steel City Foundry as of January 31, 19A. The schedules of accounts receivable and unpaid vouchers prepared previously will serve as supporting schedules to the balance sheet.
4. Record the adjusting entries in the general journal and post to the ledger.
5. Record the closing entries in the general journal and post to the ledger.
6. Rule and balance the ledger accounts.
7. Prepare a postclosing trial balance.

PRACTICE SET 3-*B*

Colgate Rubber Products Corporation Problem with a Voucher System

Samuel Colgate and his brother J. R. Colgate owned and operated a partnership engaged in the production of various rubber products, some of which were manufactured under special trade names. The partners felt that with additional capital the business would yield a higher rate of return for each dollar invested. As a consequence they decided to incorporate and interested R. R. Roberts and C. V. Carter to join with them in the formation of the Colgate Rubber Products Corporation.

The accounting system of the new corporation included a petty cash book and the following books of original entry: general journal, cash receipts journal, check register, voucher register, and sales journal. Two ledgers were operated—a general ledger and a subsidiary ledger for accounts receivable.

The necessary blank books and papers for this problem may be obtained from the publishers of this text—Practice Set 3.

The following general instructions should be heeded in solving this problem:

1. When in doubt as to the proper procedure, consult your instructor.
2. The solution should be in ink. Neat work is required.
3. Rulings should be made in ink with a ruler.
4. All payments by check should be entered in the check register, while payments in actual money should be entered in the petty cash book.
5. As much current posting as possible should be done as the work progresses.

Prepare the petty cash book and the following books of original entry with column headings as indicated below:

GENERAL JOURNAL January 19A

Debit		F	Date Debit and Credit Accounts Explanation	F	Credit	
Accounts Receivable	General Ledger				General Ledger	Accounts Receivable

PETTY CASH BOOK

Receipts		Date	Explanation	Credit	Debit		
Date	Amount			Petty Cash	Office Supplies & Expense	Factory Expense	Postage

January 19A

Sundry Debits		
Amount	F	Account

CASH RECEIPTS JOURNAL

January 19A

Date	Account	Explanation	F	Credit		Debit	
				General Ledger	Accounts Receivable	Sales Discount	Cash

CHECK REGISTER

January 19A

Date	Payee	Voucher No.	Check No	Debit	Credit	
				Vouchers Payable	Discounts Earned	Cash

VOUCHER REGISTER

Date	Payee	Voucher No.	Paid		Credit	
			Date	Check No.	Vouchers Payable	Purchases Rubber

Debit						
Purchases Raw Materials	Payroll	Boxes, Labels, and Cartons	Heat, Light, and Power	Factory Expense	Auto Expense	Advertising

January 19A

Sales Expense	Office Supplies and Expense	Sundries		
		Amount	F	Account

SALES JOURNAL

Date	Account	Terms	F	Sales Invoice No.	Debit		
					Accounts Receivable	Sales Heels and Soles	Sales Solid Tires

January 19A

Credit						
Sales Fruit Jar Rings	Sales Tubing	Sales Vulcanite Grinding Wheels	Sales Dental Rubber	Sundries		
				Amount	F	Account

Classification of Accounts

The general ledger accounts to be used in solving this problem should be set up in the following order. A knowledge of the items included under certain of the accounts is desirable before any of the entries are made.

Balance Sheet Accounts

Cash
Petty Cash
Accounts Receivable
Reserve for Bad Debts
Notes Receivable
Accrued Interest Receivable
Inventory of Finished Goods
Inventory of Goods in Process
Inventory of Rubber
Inventory of Raw Materials
Investment—Stock of Akron Rubber Company
Inventory of Coal
Inventory of Supplies
Prepaid Insurance
Prepaid Dues and Subscriptions
Prepaid Interest
Land
Buildings
Reserve for Depreciation of Buildings
Machinery and Equipment
Reserve for Depreciation of Machinery and Equipment
Tools
Auto Truck
Reserve for Depreciation of Auto Truck
Furniture and Fixtures
Reserve for Depreciation of Furniture and Fixtures
Vouchers Payable
Notes Payable
  Including trade acceptances payable
Accrued Payroll
Mortgage Interest Payable
Reserve for Taxes
Mortgage Payable
Capital Stock
Surplus

Profit and Loss Accounts

Sales—Heels and Soles
Sales—Solid Tires
  Including small tires for baby carriages, carts, etc.
Sales—Fruit Jar Rings
Sales—Tubing
Sales—Vulcanite Grinding Wheels
Sales—Dental Rubber
  Including dental gums and rubber dam
Sales Allowances
Purchases—Rubber
  Including crude and pale crepe rubber
Purchases—Raw Materials
  Including all materials, other than crude and pale crepe rubber, which
Repairs to Buildings
Superintendence
Labor—Storeroom
Insurance
  Including all insurance premiums at the time of payment except those on the auto, which are to be charged to Auto Expense
Depreciation of Buildings
Depreciation of Machinery and Equipment
Tools Expense
Property Taxes
Auto Expense
Depreciation of Auto Truck
Advertising
Sales Expense

enter into the finished products, such as sulphur, talc, whiting, aluminum flake, litharge, zinc oxide, aloxite grain, English vermilion, carbon black, rubber markers, mineral rubber, and petrolatum

Payroll
This account is debited with the total of each payroll and closed at the end of the month by an entry to distribute its balance

Labor—Factory

Boxes, Labels, and Cartons

Heat, Light, and Power
Including salaries of the engineer and firemen, coal, lubricating oil, waste, electricity, etc.

Factory Expense
Including lubricating oil, wiping rags, belting, cleaning, advertising for factory employees, etc.

Repairs to Machinery

Sales Salaries

Shipping Expense

Office Salaries

Office Supplies and Expense
Including stationery and printing, telephone, telegraph, carfare, etc.

Postage

Depreciation of Furniture and Fixtures

Bad Debts

Dues and Subscriptions
Including magazine subscriptions and dues to associations

Sales Discount

Interest Expense

Mortgage Interest Expense

Discounts Earned
Including discounts on purchases of fixed assets

Interest Earned

Manufacturing

Tradii.g

Profit and Loss

January 1, 19A

The authorized capital stock was $250,000.00, consisting of 25,000 shares of $10.00 par value stock. The partners transferred the partnership assets and liabilities to the new corporation in exchange for stock having a par value of $155,000.00.

The partnership balance sheet was as follows:

COLGATE BROTHERS

Balance Sheet, January 1, 19A

Cash	$ 17,227.50	Accounts Payable—Schedule B	$ 1,000.00
Accounts Receivable—Schedule A	3,310.00	Trade Acceptances Payable	1,550.00
Inventory of Finished Goods	7,000.00	Mortgage Interest Payable	687.50
Inventory of Rubber	6,700.00	Mortgage Payable	25,000.00
Inventory of Raw Materials	7,000.00	Samuel Colgate, Capital	85,000.00
Land	30,000.00	J. R. Colgate, Capital	70,000.00
Buildings	50,000.00		
Machinery and Equipment	50,000.00		
Tools	10,000 00		
Furniture and Fixtures	2,000 00		
	$183,237.50		$183,237.50

Schedule A—Accounts Receivable	
Keystone Shoe Factory..	$1,500.00
American Shoe Repair Supply Company.....	870.00
Lee S. Smith & Son Company................	940.00
	$3,310.00

Schedule B—Accounts Payable	
Pittsburgh Testing Laboratory..............	$ 255.00
Hoffman Process Company.................	740.00
Duquesne Towel and Supply Company.....	5.00
	$1,000.00

R. R. Roberts and C. V. Carter purchased shares at par value for cash as follows: Roberts 2,000 shares and Carter 1,000 shares.

Personnel

As to corporate duties, Samuel Colgate devoted his time to the selling and advertising side of the business, while J. R. Colgate, because of his past experience in the production of rubber products, acted as factory manager. The salary of each of the Colgate brothers was $150.00 a week beginning January 5, 19A. Mr. Roberts and Mr. Carter did not participate in the actual operating activities.

The following schedule shows the number of employees and the wages they received for their services beginning January 5, 19A:

	Weekly
5 packing girls...........	$ 20 00
1 engineer	65.00
1 chemist	100.00
2 stenographers...........	30.00
1 accountant.............	80.00
4 clerks..................	50.00
1 timekeeper.............	30.00

	Hourly
5 mill men	$1.00
10 calender feeders	0.85
5 calender operators.........	1.00
40 helpers	0.50
6 vulcanizer operators.......	0.85
10 vulcanizer helpers........	0.50
2 firemen..................	0.75
6 foremen..................	1.20
1 chief storekeeper..........	1.00
4 storekeeper helpers........	0.70

The new corporation operated nine hours a day and six days a week. Arrangements were made with all employees to pay them each Saturday for their services up to and including the preceding Saturday. In other words, the accounting department had one week to check the timecards and prepare the payroll.

Accounting for Payroll

In order to summarize the detailed wage and salary records for weekly payroll purposes, the following payroll distribution sheet was used:

PAYROLL DISTRIBUTION SHEET

Account	January 17 As of January 10	January 24 As of January 17	January 31 As of January 24	Total
Labor—Factory:				
Mill men				
Calender feeders				
Calender operators				
Helpers				
Vulcanizer operators				
Vulcanizer helpers				
Packing girls				
Heat, Light, and Power:				
Engineer				
Firemen				
Superintendence:				
J. R. Colgate				
Foremen				
Chemist				
Labor—Storeroom:				
Chief storekeeper				
Storekeeper helpers				
Auto Expense:				
Auto driver				
Sales Salaries:				
Samuel Colgate				
One stenographer				
Office Salaries:				
Accountant				
Clerks				
One stenographer				
Timekeeper				
Weekly Total				

January 5

INSTRUCTIONS TO THE STUDENT

1. Record as of January 1 the investment made by each of the four stockholders. Vouchers 1, 2, and 3 should be recorded in the voucher register for the three accounts payable that the new corporation assumed from the partnership. The debits to the three accounts payable in the sundries section of the voucher register offset the three credits to the same accounts in the general ledger column of the general journal; therefore, do not open ledger accounts for the three creditors but place checks in the folio columns to indicate they are not to be posted. Do not prepare vouchers for the trade acceptance payable, the mortgage interest payable, or the mortgage payable. They will be vouchered when payments are made.
2. Make the readjusting entry for the mortgage interest payable.
3. Proceed with the recording of the following transactions.

All individuals engaged to begin work today did so.

Received an invoice from A. W. McCloy Company for various ruled books for the accounting records and office stationery, $65.00. Terms 30 days net. Voucher 4.

Received a car of coal from the South Side Coal Company, 50 tons at $13.20 a ton. Voucher 5, check 1.

The Pittsburgh Paper and Twine Company delivered wrapping paper and twine, $67.00. Terms 2/10, n/30. (Charge Shipping Expense.) Voucher 6.

Received crude rubber from the Goodall Rubber Company, $2,677.07. Terms 10 days net. Voucher 7.

Drew a check for $150.00 for petty cash purposes. Voucher 8, check 2. (The petty cash fund is to be operated under the imprest system.)

January 6

The Duquesne Towel and Supply Company sent a collector to the office and $5.00 was given him from petty cash in payment of voucher 3.

Received from the Liberty Waste Company, terms 2/10, n/30

1 bale of waste for use in the engine room	$15.00
1 bale of wiping rags for use in the factory	7.50

Voucher 9.

Received a check for $970.00 from the American Shoe Repair Supply Company.

Purchased postage stamps from petty cash, $20.00.

Sold the Pittsburgh Grinding Wheel Company, terms 1/10, n/30

150 alundum wheels, 6-inch	$40.50
100 alundum wheels, 8-inch	48.60

Received from the Haynes, Fisher, and Gaynor Company, terms 2/10, n/30

French talc	$25.00
Whiting domestic	28.00
Aluminum flake	60.00
Voucher 10.	

Received from the Excelsior and Packing Box Company, terms 1/10, n/30

Folding boxes for packing	
Rubber dam	$119.20
Jar rings	250.00
Rubber heels	175.00
Voucher 11.	

January 7

Shipped solid tires to the Block Carriage Company, $5,320.00. Terms 1/10, n/30.

Received a sole and heel building machine from the Massachusetts Machinery Company, $3,500.00. Terms, f.o.b. Pittsburgh, 20 days net. Voucher 12.

Received a bill for $167.00 from the Fischler Painting Company for painting the inside of the factory. (Charge Factory Expense.) Voucher 13.

We noticed that the American Shoe Repair Supply Company overpaid their account on January 6. We sent them a check for $100.00. Voucher 14, check 3.

January 8

Shipped Lee S. Smith & Son Company, terms 2/10, n/30

Dental rubber	$3,900.00
Rubber dam	430.00

Paid $10.00 from petty cash for factory cleaning.

Received stand-up boxes for dental gum from the Excelsior and Packing Box Company, $145.00. Terms 1/10, n/30. Voucher 15.

January 10

Sold the American Shoe Repair Supply Company heels and soles for $3,135.00. Terms 30 days net.

Sold $750.00 of tubing to the Union Drug Company, terms 2/10, n/30.

Although the terms of the purchase of the sole and heel building machine provided that the freight was to be paid by the Massachusetts

Machinery Company, they did not prepay the freight. We gave the Continental Transfer Company a check for $243.67 to cover this charge. Voucher 16, check 4. Voucher 12 was cancelled and voucher 17 was prepared for the reduced liability to the Massachusetts Machinery Company.

Signed an advertising contract with *Rubber Age* for one year at $100.00 a month. Sent a check for $100.00 to cover the January advertisement. Voucher 18, check 5.

January 12

Received from the Hoffman Process Company, terms 2/10, n/30

Imported litharge	$ 80 00
Super sulphur	800 00
Voucher 19.	

The Pittsburgh Grinding Wheel Company advised us that ten of the 6-inch wheels we sold them on January 6 were broken in transit. We sent a credit memorandum.

The Iron City Roofing Company sent a bill for $65.00 for minor repairs to the roofs of the buildings. Voucher 20.

Received $52.00 of pure sulphur flour from the T. C. & S. C. White Company, terms 2/10, n/30. Voucher 21.

Sent a check for $15.00 to the Pitt Advertising Agency to cover their advertising bill just received. Voucher 22, check 6.

Sent a check for $65.66 to the Pittsburgh Paper and Twine Company for the net amount due on voucher 6. Check 7.

January 13

Received pale crepe rubber from Ernest & McLean, $343.43, terms 30 days net. Voucher 23.

Paid $5.00 from petty cash for ice and water used in the office.

Received an adding machine from the Dalton Company, $350.00, terms 2/10, n/30. Voucher 24.

Sold solid tires to Lyle Brothers, $6,432.00, terms 10 days net.

January 14

Sold $647.00 of tubing to the Equitable Gas Company, terms 30 days net.

Received $560.00 of zinc oxide from the American Zinc Company, terms 30 days net. Voucher 25.

Purchased an automobile truck from the East Liberty Motor Sales Company.

List price	$2,500.00
Freight	243.00
Voucher 26.	

Sent checks to the following:

Liberty Waste Company for voucher 9. Check 8.
Goodall Rubber Company for voucher 7. Check 9.
East Liberty Motor Sales Company for voucher 26. Check 10.
Pennsylvania Department of Revenue for the auto license, $15.00. Voucher 27, check 11.
Oakland B & L Association for $750.00 of interest due tomorrow on the mortgage. Voucher 23, check 12.

January 15

Paid $25.00 from petty cash for postage stamps.

The Pittsburgh Grinding Wheel Company sent a check for $85.00. They miscalculated the discount, as the remittance should have been $85.54. We recorded discount of $.86 and asked them to remit an additional $.54.

The following checks were mailed:

Haynes, Fisher, and Gaynor Company for voucher 10, $110.74, check 13.
Excelsior and Packing Box Company for voucher 11, $538.76, check 14.

January 17

Paid the payroll as of January 10; all individuals engaged to report for work on January 5 did so and all worked the full week. The student must calculate this and all subsequent payrolls. A payroll distribution sheet should be prepared to conform with the illustration given previously in this problem. On this sheet the distribution of this and each subsequent payroll should be entered. At the end of the month the payroll distribution sheet will furnish the necessary information for the distribution of the Payroll account. At this time charge Payroll in the voucher register for the total of the wages and salaries paid. Voucher 29, check 15.

A truck driver was hired at $24.00 a week. He started work this morning.

Received from the Werner Manufacturing Company, terms 2/10, n/30

Carbon black	$ 90.00
Rubber markers red	350.00

Voucher 30.

Paid $10.00 from petty cash for office supplies.

Voucher 31 was prepared to cover a bill received from Murray, Mohler & Company

Insurance on buildings	$375.00
Insurance on contents	425.00
Automobile insurance	127.40

(Debit the proper expense accounts.)

Received a check from the Block Carriage Company for the net amount due on their purchase of January 7.

Sold $500.00 of fruit jar rings to the Scientific Specialty Company, terms 2/10, n/30.

Received from the Hoffman Process Company, terms 2/10, n/30

Mineral rubber	$64.00
Amber petrolatum	25.00
Voucher 32.	

Dixon Motor Company sent a bill for $14.62 covering gasoline and other purchases for the auto truck. Voucher 33.

Received a 30-day 6 per cent note from Lyle Brothers to cover their entire indebtedness. The note was dated January 15.

Sent a check to the Excelsior and Packing Box Company for the net amount due on voucher 15. Check 16.

January 19

Sold Powell Clouds Company alundum wheels of different grades and prices under their trade name of True Cut Grinding Wheels, $1,866.67, terms 30 days net.

Received a check for $5,148.12 from Lee S. Smith & Son Company. It included the $940.00 owed on January 1, 19A, on which there was no discount, and a partial payment of their purchase of January 8. We allowed the proportionate amount of discount. There was no letter of explanation as to the reason the check did not cover the entire amount due. The discount period ended on January 18 but the letter was mailed within the 10-day period.

January 20

Sold Strauss and Sickler, terms 2/10, n/30

Elite soles	$4,500.00
Elite heels	4,200.00

Received rubber from the Goodall Rubber Company, $1,761.02, terms 10 days net. Voucher 34.

Paid $1.75 from petty cash for telegrams and carfare.

The Pittsburgh Grinding Wheel Company sent $.54 in stamps to balance their account. (Record through the petty cash book and the cash receipts journal.)

The Union Drug Company sent a check for $735.00.

January 21

Sold $510.00 of Excello Fruit Jar Rings to the American Stores Company, terms 2/10, n/30.

Paid $1.40 from petty cash to the *Pittsburgh Post* for an advertisement for an extra packing girl.

Sent a check for the net amount due the Hoffman Process Company on voucher 19. Check 17.

January 22

Received from the Werner Manufacturing Company, terms 2/10, n/30

Pale orange English vermilion....................	$291.00
Extra pale orange English vermilion..............	194.00
Deep English vermilion.	194.00
Voucher 35.	

Mailed the following checks:

T. C. & S. C. White Company........	$ 50.96.	Check 18
Ernest & McLean..............	343.43.	Check 19
Dalton Company. . ..	343.00.	Check 20

Received a check from Strauss and Sickler for the net amount due on our sale of January 20.

January 24

Received $792.00 of aloxite grain from the Carborundum Company, terms 30 days net. Voucher 36.

Paid the payroll for the week ended January 17. All employees worked the full week except the truck driver and two helpers who were ill. One helper lost three days and the other lost two days. They were not paid for the time lost. The truck driver started work on January 17. Voucher 37, check 21.

It was decided that a $100.00 petty cash fund would be sufficient, so $50.00 was removed from the drawer and deposited in the bank.

Paid the annual dues in the Rubber Association of America, $100.00. Voucher 38, check 22.

Purchased through the Masters Brokerage Company, 800 shares of Akron Rubber Company stock at 60. Brokerage and other charges amounted to $127.50. Voucher 39 and check 23 for $48,127.50. This stock was purchased in order to effect a consolidation at an early date.

Purchased Sterling belting to replace worn belts. The N. Y. Belting and Packing Company sent an invoice for $52.00. Voucher 40.

Made a $10,000.00 loan at the bank by discounting our own 60-day note for $10,000.00. Rate of discount 6 per cent.

January 26

Sold Strauss and Sickler $1,200.00 of Elite heels, terms 2/10, n/30.

The Central News Agency billed us for $12.00 for magazine subscriptions. Voucher 41, check 24.

Received lubricating oils from the Purol Refining Company, $60.00. It was estimated that one-third would be used in the factory and two-thirds in the engine room. Voucher 42.

Paid $10.00 from petty cash for postage stamps.

The Lee S. Smith & Son Company publish a magazine called the *Dental Digest*. They billed us for $36.00 for advertising for the month of January. Voucher 43. A letter with the bill stated that they had reduced their liability to us by that amount. Cancel voucher 43.

Received 43 tons of coal from the South Side Coal Company, $473.00. Gave a check to the driver to cover. Voucher 44, check 25.

Sent a check to the Werner Manufacturing Company for the net amount due on voucher 30. Check 26.

Sent check 27 to the Hoffman Process Company for the net amount due on voucher 32.

As the cash balance was reduced considerably by the purchase of the Akron Rubber Company stock, we asked the Massachusetts Machinery Company to accept our 30-day note for the net amount due them. They agreed and the note was given.

January 28

Sold $853.00 of tubing to the Equitable Gas Company, terms 30 days net.

Sent a check to the *India Rubber World* for January advertising. Voucher 45 and check 28 for $75.00.

Sent a check for $85.00 to the Fort Pitt Machine Company for repairs made to machinery. Voucher 46, check 29.

Received a check dated January 27 from the Scientific Specialty Company for the net amount of their purchase of January 17.

January 29

Shipped Powell Clouds Company alundum wheels of different grades and prices, $1,193.33. Terms 30 days net.

January 31

Sold the American Stores Company $510.00 of Evergood Fruit Jar Rings, terms 2/10, n/30.

The Bailey National Bank notified us that they paid the trade acceptance amounting to $1,550.00. Voucher 47, check 30.

Checks were sent to the following:

A. W. McCloy Company...........	$ 65.00.	Check 31
Goodall Rubber Company..........	1,761.02.	Check 32
Werner Manufacturing Company....	665.42.	Check 33
Pittsburgh Testing Laboratory .	255.00.	Check 34

Received a check for $499.80 from American Stores Company to cover their purchase of January 21.

Received a check for $1,500.00 from the Keystone Shoe Factory for the balance of January 1.

Sold Lee S. Smith & Son Company, terms 2/10, n/30

Dental gum.....	$3,750.00
Rubber dam buff thin..........................	210.00
Rubber dam buff medium.......	360.00

Checks were drawn for the following:

Duquesne Light Company for electricity...	$ 90.00.	Voucher 48, check 35.
North Pole Ice Company for ice used in the office..	1.50.	Voucher 49, check 36.
Duquesne Towel and Supply Company, for supplies used in the office........	5.00.	Voucher 50, check 37.
Bell Telephone Company..	6.00.	Voucher 51, check 38.
Robert Hurst, our representative, to reimburse him for money paid from his pocket for entertaining prospective customers of our products.........	610.70.	Voucher 52, check 39.

Paid the payroll as of January 24. One extra packing girl reported for work the morning of January 19 and worked the entire week. She received the same pay as the other packers. Voucher 53, check 40.

Reimbursed petty cash by the imprest system. Voucher 54, check 41.

Distributed the Payroll account to the various accounts that were to be charged for wage and salary payments. This information was shown on the payroll distribution sheet.

Instructions to the Student

1. Complete all current postings.
2. Total and rule all original entry books and the petty cash book.
3. Make all postings necessary at the end of the month.
4. Prepare a trial balance of the general ledger in the first two columns of a twelve-column work sheet.
5. Prepare a schedule of the accounts receivable ledger to support the trial balance figure for the Accounts Receivable controlling account.
6. Prepare a schedule of unpaid vouchers to support the trial balance figure for Vouchers Payable.

7. Complete the twelve-column work sheet using, in addition to the trial balance columns, both debit and credit columns under the following headings:

Adjustments, Manufacturing, Trading, Profit and Loss, and Balance Sheet.

Note: See the first of the Additional Instructions to the Student on page 734.

Supplementary Data

The supplementary data to be considered with the trial balance for the purpose of completing the work sheet and adjusting the books follow:

Inventories, January 31, 19A

Rubber	$3,642.17
Raw materials	2,675.19
Coal	590.00
Boxes, labels, and cartons	246.73
Stamps	14.06
Boiler-room supplies	33.89
Shipping supplies	10.90

Other inventories of supplies were too small to be considered.

Goods in Process. There was an inventory of goods in process on January 31, 19A of $2,670.00.

Finished Goods. On January 31, there were finished goods on hand valued at $5,450.00.

Accrued and Prepaid Items, January 31, 19A

Accrued payroll for the week ended January 31 was exactly the same as the payroll paid on January 31 for the week ended January 24.

Insurance:	
Prepaid insurance on buildings and contents	$733.33
Prepaid auto insurance	122.09
Prepaid dues and subscriptions	102.67
Prepaid interest on the bank loan	88.33
Accrued interest on notes receivable	17.15
Accrued interest on the mortgage payable	62.50

Depreciation for January

Depreciation rates per year (figure $\frac{1}{12}$ for January):

Buildings	2 per cent
Machinery and equipment	12 per cent
Furniture and fixtures	6 per cent
Auto truck (Consider a full month)	20 per cent

Transfer the Depreciation of Auto Truck account to the Auto Expense account.

Record $100.00 of tools expense for January.

Bad Debts and Taxes for January

A reserve for bad debts should be provided to the extent of 1 per cent of accounts receivable.

A reserve for property taxes should be provided to the extent of $200.00.

A reserve for federal taxes should be provided to the extent of $1,800.00.

Additional Instructions to the Student

1. The following expenses should be distributed in the proportions indicated:

	Manufacturing, Per Cent	Trading, Per Cent	Administration, Per Cent
Heat, light, and power......	80	10	10
Repairs to buildings.........	80	10	10
Labor—Storeroom..........	70	30	
Insurance	80	10	10
Auto expense (including depreciation)....	20	80	
Depreciation of buildings....	80	10	10
Depreciation of furniture and fixtures...	20	10	70
Property taxes.	80	10	10

2. Prepare a statement of profit and loss for the month of January, 19A.
3. Support the statement of profit and loss with the following schedules:
   a. Cost of goods manufactured and cost of goods sold.
   b. Selling expenses.
   c. Administrative expenses.
4. Prepare a balance sheet as of January 31, 19A. The schedules of accounts receivable and unpaid vouchers prepared previously will serve as supporting schedules to the balance sheet.
5. Record the adjusting entries in the general journal and post to the ledger.
6. Record the closing entries in the general journal and post to the ledger.
7. Rule and balance the ledger accounts.
8. Prepare a postclosing trial balance.

Chapter XXX. Analysis and Interpretation of Financial Statements

1. The balance sheets of three competing companies show the following facts as of the same day:

	A	B	C
Fixed Assets (Less Reserves)	$ 700,000.00	$ 725,000.00	$ 710,000.00
Total Assets	1,300,000.00	1,305,000.00	1,310,000.00
Fixed Liabilities	300,000.00	350,000.00	200,000.00
Total Liabilities	470,000.00	500,000.00	390,000.00
Capital Stock	730,000.00	755,000.00	830,000.00
Surplus	100,000.00	50,000.00	90,000 00

Required:

a. Compute the ratio of net worth to total liabilities and net worth of each company. If liquidation of these companies became necessary, which company could stand the greatest loss in asset values? Give your reasons.

b. Compute the ratio of net worth to fixed assets for each company.

c. Compute the ratio of surplus to net worth for each company.

d. Compute the ratio of fixed assets to fixed liabilities for each company.

e. Compute the ratio of net worth to fixed liabilities for each company.

f. Under each of the foregoing parts indicate briefly any conclusions that may be drawn from these ratios.

2. Companies A and B operate wholesale businesses and sell the same kind of merchandise. Their balance sheets prepared as of the same day contain the following current assets and liabilities:

	A	B
Current Assets:		
Cash	$12,000.00	$16,000.00
Accounts Receivable (Less Reserves)	14,000.00	16,600.00
Notes Receivable	3,700.00	4,000.00
Accruals Receivable	300.00	400.00
Inventory of Merchandise	20,000 00	13,000 00
Total Current Assets	$50,000.00	$50,000 00
Current Liabilities:		
Accounts Payable	$22,000.00	$13,400.00
Notes Payable	7,000.00	6,000.00
Accruals Payable	1,000.00	600.00
Total Current Liabilities	$30,000.00	$20,000.00

The trading sections of their statements of profit and loss for the year just ended show the following facts:

	A	B
Sales	$180,000.00	$202,000.00
Less: Sales Returns and Allowances	5,000.00	2,000.00
Net Sales	$175,000.00	$200,000.00
Cost of Goods Sold:		
Inventory of Merchandise, January 1	$ 18,000.00	$ 15,000.00
Purchases	134,250.00	138,000.00
Total	$152,250.00	$153,000.00
Less: Inventory of Merchandise, December 31	20,000.00	13,000.00
Cost of Goods Sold	$132,250.00	$140,000.00
Gross Profit on Sales	$ 42,750.00	$ 60,000.00

Required:

a. Compute the percentage of each current asset to the total current assets of each company.

b. Compute the working capital and the working capital ratio of each company.

c. Each company desires to borrow cash on a 30-day note. Which company do you think is the best credit risk? Explain.

d. If Company A sells one of its buildings with a book value of $10,000.00 for $5,000.00, what changes would take place in the working capital and the working capital ratio determined in part *b*?

e. If Company A borrows $5,000.00 on its own 60-day note at a discount rate of 6 per cent, what changes would take place in the working capital and the working capital ratio determined in part *b*?

f. Compute the percentage of sales returns and allowances, the cost of goods sold, and the gross profit on sales to the net sales of each company.

g. Compute the merchandise turnover of each company.

h. Assuming that Company B is operating efficiently, what suggestions would you make to improve the inventory and cost of goods sold condition of Company A?

3. The Conlon Shoe Store has been operating for eighteen months. All sales have been made for cash. Statements have been prepared each six months. The three balance sheets show the following current condition at the end of the

	First Six Months	Second Six Months	Third Six Months
Current Assets:			
Cash	$ 5,390.00	$13,865.00	$ 6,305.00
Inventory of Merchandise	16,000.00	6,000.00	15,000.00
Total Current Assets	$21,390.00	$19,865.00	$21,305.00
Current Liabilities	$ 4,850.00	$ 3,937.00	$ 4,936.00

The following data were obtained from the three statements of profit and loss prepared for the

	First Six Months		Second Six Months		Third Six Months	
	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent
Net Sales	$60,000	x	x	100.0	x	x
Cost of Goods Sold	39,960	x	38,686	66.7	39,412	x
Gross Profit on Sales	$20,040	x	x	33.3	x	33.2
Operating Expenses	18,420	x	x	30.8	x	x
Net Profit on Sales	$ 1,620	x	x	2.5	x	2.5
Other Income:						
Purchase Discounts	720	x	x	.9	x	x
Net Profit for the Period	$ 2,340	x	x	3.4	x	4.1

Required:

a. Compute the percentage of each current asset to the total current assets at the end of each period.

b. Complete the three statements of profit and loss, presenting all missing amounts and percentages.

c. Compute the merchandise turnover in each of the three periods. Assume that the inventory of merchandise at the beginning of the first period was $15,400.00.

d. Compute the amount of the merchandise purchased during each of the three periods.

e. Study your solution to part *d* and explain why the percentage of cash to the total current assets at the end of the second period was abnormally large.

f. Compute the ratio of purchase discounts to the net profit of each period.

4. A department store had operated for 30 years in a building that had an original cost of $420,000.00 and an estimated life of 60 years. Two years ago the company sold its building for $205,000.00 and erected a more modern building at a cost of $600,000.00. The directors assumed that the competitive advantages of the new building would enable the company to earn larger net profits in spite of an increase in fixed charges.

The new building was financed partly by the sale of $350,000.00 of first-mortgage sinking fund bonds with a life of 20 years, bearing 4 per cent interest payable semiannually. The bonds were sold at par.

The following facts were taken from the statements prepared at the end of each of the last three years:

	Three Years Ago	Two Years Ago	Last Year
Building	$420,000.00	$600,000.00	$600,000.00
Less: Reserve for Depreciation	210,000.00	10,000.00	20,000.00
Book Value	$210,000.00	$590,000.00	$580,000.00
First-mortgage Sinking Fund Bonds	0	350,000.00	350,000.00
Sinking Fund	0	17,500.00	35,000.00
Gross Profit on Sales	792,000.00	804,000.00	807,000.00
Working Capital Ratio	2.97 to 1	2.81 to 1	2.73 to 1

Required:

a. Determine the percentage of the gross profit of two years ago to the gross profit of three years ago.

b. Determine the percentage of the gross profit of last year to the gross profit of three years ago.

c. State whether in your opinion the increase in fixed assets has produced the result which the directors assumed. Limit your answer to the above facts.

d. Explain the decreasing working capital ratio.

5. The following condensed balance sheet and statement of profit and loss, the analysis of surplus, and other data pertain to the Ewald Company:

EWALD COMPANY

BALANCE SHEET, DECEMBER 31, 19A

Assets		Liabilities	
Current Assets	$60,000.00	Current Liabilities	$22,000.00
Deferred Charges	200 00	Deferred Credits	100 00
Fixed Assets	9,800.00	Fixed Liabilities	3,900.00
		Total Liabilities	$26,000.00
		Net Worth	
		Common Stock (Par $50.00)	$35,000.00
		Surplus	9,000 00
		Total Net Worth	$44,000 00
Total Assets	$70,000.00	Total Liabilities and Net Worth	$70,000.00

EWALD COMPANY

STATEMENT OF PROFIT AND LOSS

For the Year Ended December 31, 19A

Sales		$201,000.00
Less: Sales Returns and Allowances		1,000.00
Net Sales		$200,000.00
Cost of Goods Sold		136,000.00
Gross Profit on Sales		$ 64,000.00
Less:		
Selling Expenses	$34,400.00	
General and Administrative Expenses	23,600.00	58,000.00
Net Profit on Sales		$ 6,000.00
Less: Other Expenses and Losses		400.00
		$ 5,600.00
Add: Other Income		1,400.00
Net Profit for the Year		$ 7,000 00

EWALD COMPANY

ANALYSIS OF SURPLUS

For the Year Ended December 31, 19A

Surplus—January 1, 19A		$ 7,200.00
Add: Net Profit for the Year		7,000.00
		$14,200.00
Less: Dividends declared Feb. 10, 19A	$3,500.00	
Reserve for Federal Taxes	1,700 00	5,200 00
Surplus—December 31, 19A		$ 9,000 00

Additional data:

	January 1, 19A	December 31, 19A
Inventory of Merchandise	$34,000.00	$35,000 00
Accounts Receivable	16,000.00	14,000.00
Working Capital	33,000.00	

All sales were made on account, terms net 30 days.

Required:

From the foregoing data you are asked to submit your calculations to determine

a. The working capital ratio and the acid-test ratio as of December 31, 19A.

b. The turnover of the working capital in 19A. Divide the net sales by the average of the working capital of January 1 and December 31, 19A.

c. The turnover of the accounts receivable in 19A. Divide the net sales by the average of the accounts receivable of January 1 and

December 31, 19A. Then compute the average number of days that accounts receivable were outstanding—the average collection period. Divide the 365 days of the year by the number of times the accounts receivable were turned over.

d. The ratio of fixed assets to fixed liabilities.

e. The ratio of net worth to
 (1) Fixed liabilities.
 (2) Fixed assets.
 (3) Total liabilities and net worth.
 (4) Capital stock.

f. The percentage of each of the following to net sales
 (1) Sales returns and allowances.
 (2) Gross profit on sales.
 (3) Total operating expenses.
 (4) Other income.
 (5) Net profit for the year.

g. The percentage of
 (1) Net profit for the year to the net worth at the beginning of the year. The outstanding stock did not change during the year.
 (2) Net profit for the year to capital stock.
 (3) Other income to the net profit for the year.

h. The merchandise turnover during the year.

i. The amount of profit earned on each share of stock during the year.

j. The book value of each share of stock.

6. The following comparative balance sheet shows the financial condition of the Duncan Company, December 31, 19A, and December 31, 19B:

DUNCAN COMPANY

Comparative Balance Sheet, December 31, 19A and 19B

Assets	December 31, 19A Last Year	December 31, 19B Year Before Last
Current Assets:		
Cash	$ 5,537.00	$11,075.00
Accounts Receivable (Less Reserve)	12,416.00	8,820.00
Notes Receivable	500.00	200.00
Commissions Receivable	51.00	39.00
Inventory of Merchandise	13,039.00	11,030.00
Marketable Securities (XYZ Stock)	0	2,010.00
Total Current Assets	$31,543.00	$33,174.00

Deferred Charges:		
Prepaid Insurance	$ 331.00	$ 313 00
Inventory of Supplies	182.00	218 00
Organization Expense	1,000.00	1,500 00
Total Deferred Charges	$ 1,513.00	$ 2,031 00
Fixed Assets:		
Land	$ 4,000.00	$ 4,000.00
Building (Less Reserve for Depreciation)	18,500.00	19,000.00
Furniture and Fixtures (Less Reserve)	1,275.00	1,350.00
Advertising Fixtures	400.00	0
Total Fixed Assets	$24,175.00	$24,350.00
Total Assets	$57,231.00	$59,555.00
Liabilities		
Current Liabilities:		
Mortgage Payable (Due January 1)	$ 1,000.00	$ 1,000.00
Accounts Payable	10,690.00	5,800.00
Notes Payable	400.00	300.00
Reserve for Federal Taxes	1,175.00	3,100.00
Miscellaneous Accruals Payable	394.00	309.00
Total Current Liabilities	$13,659.00	$10,509.00
Fixed Liabilities:		
Mortgage Payable	$10,000.00	$11,000.00
Total Liabilities	$23,659.00	$21,509.00
Net Worth		
Capital Stock	$30,000.00	$30,000.00
Surplus	3,572.00	8,046 00
Total Net Worth	$33,572 00	$38,046 00
Total Liabilities and Net Worth	$57,231.00	$59,555 00

DUNCAN COMPANY

ANALYSIS OF SURPLUS

For the Year Ended December 31, 19A

Surplus—December 31, 19B		$ 8,046.00
Add: Net Profit for the Year		4,701.00
		$12,747.00
Less: Dividend declared February 5, 19A	$7,500.00	
Writeoff of Organization Expense	500.00	
Reserve for Federal Taxes	1,175.00	9,175.00
Surplus—December 31, 19A		$ 3,572.00

NOTE: Consider 19B the base year.

Required:

a. Prepare a comparative balance sheet to show the increase or decrease in each item both in amount and in percentage. Beside

each item show its percentage relationship to the total of its group.

b. Express the decrease in net worth as a percentage of the dividend.

c. Compute the working capital and the working capital ratio at the end of each year.

d. Compute the ratio of net worth to fixed assets at the end of each year. At which date was there a larger amount of net worth for each dollar of fixed asset value, and by how much was it larger?

e. Compute the ratio of net worth to the total liabilities and the net worth at the end of each year. How much of each dollar of total assets was supplied by the owners? Does the change in the ratio indicate that the creditors had a smaller percentage of equity in the total assets at December 31, 19A?

f. Compute the ratio of fixed assets to fixed liabilities at the end of each year. For each dollar of fixed liability at December 31, 19A, what was the amount of fixed asset value? Does the change in the ratio indicate that the owners increased their equity in the fixed assets?

7. The following comparative statement of profit and loss was prepared for Duncan Company for the years ended December 31, 19A, and December 31, 19B:

DUNCAN COMPANY

COMPARATIVE STATEMENT OF PROFIT AND LOSS

For the Years Ended December 31, 19A and December 31, 19B

	Year Ended December 31, 19A	Year Ended December 31, 19B
Sales	$183,000.00	$180,000 00
Less: Sales Returns and Allowances	4,209.00	2,850.00
Net Sales	$178,791.00	$177,150 00
Less: Cost of Goods Sold (Schedule A)	132,676.00	126,097 00
Gross Profit on Sales	$ 46,115.00	$ 51,053 00
Less: Selling Expenses (Schedule B)	$ 22,880.00	$ 21,676.00
General and Administrative Expenses (Schedule C)	20,264 00	18,956.00
Total Operating Expenses	$ 43,144 00	$ 40,632.00
Net Profit on Sales	$ 2,971.00	$ 10,421.00
Less: Other Expenses and Losses (Schedule D)	481.00	480.00
	$ 2,490.00	$ 9,941.00
Add: Other Income (Schedule E)	2,211.00	2,123.00
Net Profit for the Year	$ 4,701.00	$ 12,064.00

SCHEDULE A

Cost of Goods Sold

	Year Ended December 31, 19A	Year Ended December 31, 19B
Inventory of Merchandise, January 1	$ 11,030.00	$ 10,900.00
Purchases	133,969.00	125,771.00
Transportation In	1,206.00	1,056.00
Total	$146,205 00	$137,727.00
Less: Purchase Returns and Allowances	$ 490.00	$ 600.00
Inventory of Merchandise, December 31	13,039.00	11,030.00
	$ 13,529.00	$ 11,630 00
Cost of Goods Sold	$132,676.00	$126,097.00

SCHEDULE B

Selling Expenses

	Year Ended December 31, 19A	Year Ended December 31, 19B
Sales Salaries	$13,621.00	$13,097.00
Transportation Out	4,199.00	4,100.00
Store and Packing Supplies	1,211.00	993.00
Advertising	2,413 00	2,690.00
Miscellaneous Selling Expenses	1,436.00	796.00
	$22,880 00	$21,676.00

SCHEDULE C

General and Administrative Expenses

	Year Ended December 31, 19A	Year Ended December 31, 19B
Office Salaries	$ 5,060.00	$ 5,060.00
Officers' Salaries	10,500.00	9,950.00
Office Supplies	1,516 00	1,198.00
Telephone and Telegraph	286.00	290.00
Insurance	439.00	413.00
Property Taxes	219.00	210.00
Depreciation of Furniture and Fixtures	75.00	75.00
Depreciation of Building	500.00	500.00
Bad Debts	394.00	210.00
Legal and Auditing Fees	500.00	550.00
Miscellaneous General and Administrative Expenses	775.00	500.00
	$20,264.00	$18,956.00

Schedule D
Other Expenses and Losses

	Year Ended December 31, 19A	Year Ended December 31, 19B
Interest on Mortgage	$440.00	$480.00
Loss on Sale of Securities	41.00	0
	$481.00	$480.00

Schedule E
Other Income

	Year Ended December 31, 19A	Year Ended December 31, 19B
Interest on Notes Receivable	$ 19.00	$ 14.00
Purchase Discounts	1,851.00	1,808.00
Commissions Earned	341 00	301.00
	$2,211.00	$2,123.00

Required:

a. A comparative statement of profit and loss and supporting schedules to show the increase or decrease in each item both in amount and percentage. Consider 19B the base year. Beside each item show its percentage relationship to net sales.

b. Was the change in gross profit in line with the change in gross sales? Discuss the possible reasons for the gross profit condition.

c. Was the percentage of increase in total operating expenses in line with the percentage of increase in net sales?
Which operating expenses show a large percentage of increase?
Which operating expenses show a comparatively small percentage of increase but, from the standpoint of the smaller profit, show a comparatively large increase in amount?
Suggest how a different policy on advertising might have improved the operating expense condition.

8. Refer to Problems 6 and 7.
Required:

a. Compute the merchandise turnover in each year.

b. Compute the turnover of accounts and notes receivable in 19A by dividing the net charge sales by the average of the accounts and notes receivable of January 1, 19A, and December 31, 19A. Assume that the total net sales included $39,113.00 of cash sales.

c. Compute the average number of days that receivables were outstanding in 19A (the average collection period), by dividing

the 365 days of the year by the number of times the receivables were turned over during the year. Assuming that all charge sales were made at terms 30 days net, how did the average collection period compare with the terms of sale?

d. Compute the turnover of accounts and notes payable in 19A by dividing net purchases by the average of the accounts and notes payable of January 1, 19A, and December 31, 19A. Assume that no purchases were made for cash. Assume that all accounts and notes payable at both dates were for merchandise.

e. Assuming that credit was extended for 30 days on all purchases of merchandise, was the average payable paid within the terms of purchase?

f. For each year compute the amount of profit earned on each share. The par value of each share was $25.00.

g. Compute the book value of each share of stock at the end of each year.

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